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SHIPBOARD MEDICAL DEPARTMENT INFORMATION FLOWS (U) NAVAL 1/1
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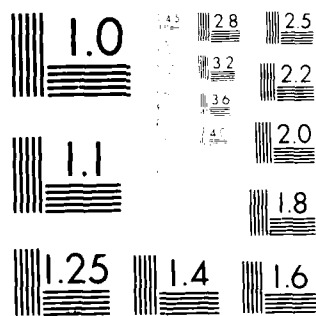
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Medical Information Systems Department
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The authors wish to express their appreciation to all Navy medical department representatives who participated in this study and to Kathryn Medrano for her typing and editorial assistance.

SUMMARY

Numerous reports, messages, and supply requests are transmitted from U.S. shipboard medical departments. These information flows may terminate aboard the ship, within the squadron, or with external Navy commands. The need to record and transmit this information underscores the demand for computerization of shipboard medical departments. Three different procedures were used to determine the medical information processing requirements aboard ships: shipboard medical procedure manuals were reviewed, a survey was developed and sent to surface ships of the Pacific Fleet, and interviews were held with shipboard medical department representatives. The structured analysis method was utilized to document the information flows proposed for automation. The documented medical department communications include a weight control memorandum, atmosphere control reports, six medical regulating messages, and asbestos reporting requirements. Issues of concern to the development of a medical information system were also discussed.

Shipboard Medical Department Information Flows

Introduction

The efficient functioning of U.S. Navy medical departments, both ship and shore based, requires that health records be kept and pertinent information communicated. Information flows may be transmitted over a short physical distance (medical department to ship safety officer) or may traverse hundreds or thousands of miles (medical department to agency in Washington). Essential to this communication process is the ability to store and retrieve information rapidly. Manual recordkeeping aboard ships presents difficulties due to limited space inside and outside medical departments and the necessity for information to be forwarded to various individuals aboard. The need to record and transmit information with the further requirement of doing so without a proliferation of paper underscores the demand for computerization of shipboard medical departments.

Automation of medical departments would serve to reduce the administrative burden on the medical department representatives¹ as well as ensure greater accuracy in the reports that are generated. Presently, reports are filled out manually and recurring data elements such as crew member name, birthdate, and division must be written in on each individual report. This redundancy of effort would be eliminated with an automated medical information system. Report generation is only one of several functions that could be incorporated into such a system. Additional components of medical department computerization might include a medical reference library, computer assisted diagnostics, and a daily task inventory².

Before an automated report generator function can be developed, information flows originating within medical departments must be delineated. Functional users must identify their present and anticipated reporting requirements. To this end, input was solicited from senior corpsmen of various commands (SURFLANT, SUBLANT, MEDCOM) and a functional description compiled³. To obtain a fuller understanding of the medical department data flows, a systems analysis was conducted by Naval Health Research Center.

The systems analysis of shipboard medical departments was conducted with the scope of inquiry expanded to include those ships with medical departments.

The intent of this report is to specify any information flows applicable to the duties of medical department personnel that were not included in the initial functional description and to document them in a format that can be used in the development of a medical information system. Additionally, issues of concern to the development of such an information processing system will be discussed.

Method

In order to clearly document information flows that might benefit from automation, the structured analysis approach has been used. This method, developed by Yourdon and Constantine¹⁰ and further refined by Demarco,¹¹ makes use of data flow diagrams, mini specifications, data flows, and the data dictionary elements. Data flow diagrams establish what the information flows are; the informational pipelines applicable to shipboard medical departments are depicted in Appendix I. Mini specifications are the Structured English equivalents of the processes illustrated by the data flow diagrams; the pertinent mini specifications make up Appendix II. Data flows consist of information of a known composition that is being transmitted and data dictionary elements are the individual components of these data flows; Appendices III and IV contain these two phases of the structured analysis procedure as applied to shipboard medical information processing.

Three different procedures were used to determine the medical information processing requirements aboard ships. The first method was to review the Shipboard Medical Procedure manuals^{4,5,6,7,8} of the various Type Commands (SURFPAC, SUBPAC, AIRPAC, SURFLANT, AIRLANT) to learn which reports and logs are required to be maintained. Second, a survey was developed to ascertain the perceived medical information system needs of senior medical department representatives. This survey was sent to the surface ships of the Pacific Fleet, and the responses were compiled and analyzed². The third mode of information gathering was visitation of ships for the purpose of structured interviews with medical department personnel. An "open-schedule"⁹ interview of the survey questions was utilized to encourage medical personnel to provide any input they deemed relevant. The three different procedures used in the shipboard medical systems analysis yielded an expected redundancy in ascertainment of medical information processes but allowed for specific require-

Findings

Shipboard Medical Department Information Flows

The original functional description documented the following shipboard data flows: Health Record Entries, Binnacle List, Sick Call Log, Morning Report of the Sick and Injured, Medical Disposition Memoranda, PRP Removal/Reinstatement Memoranda, Accident/Injury Report, Radiation Surveillance Report, Medical Supply Inventory Report, Pest Control Report, Medical Equipment Inventories, Heat Stress Report, Dental Classification Report, Controlled Medicinals, and Training Logs and Schedules. These data flows (reports, forms, memoranda) are communications that are sent from the medical department to various shipboard personnel. In addition to reports to personnel aboard the ship, there are further communications that are transmitted to amphibious task force members as well as to external agencies.

Additional Shipboard Communications

One previously undocumented on board communication originating within the medical department is in response to demands for weight control standards and minimum levels of physical readiness^{12,13}. In accordance with the Navy's Physical Readiness Program (PRP), Commanding Officers are to appoint a minimum of one Command Fitness Coordinator (CFC) to carry out the directives of the program. Though the PRP falls directly under the purview of the Fitness Coordinator, medical department personnel are called upon to lend assistance, especially in regards to the weight control program. Specific responsibilities of the medical department related to the PRP include verification of current physical examination, medical clearance to participate in physical conditioning program/testing, and evaluation for obesity. In those instances that percent body fat is greater than or equal to the 26 percent for males or 36 percent for females, the medical evaluation shall include a reassessment of body composition, referral to appropriate level of rehabilitation program, and if crew member is diagnosed as obese, disallowance of Physical Readiness Testing.

Guidelines have been set forth for determination of percent body fat, as well as criteria for rehabilitation program level assignment. Percent body fat for males is determined by matching the circumference value (abdominal circumference minus neck circumference) to the appropriate height in Chart A (Percent Fat Estimation for Males). Percent body fat for females is determined by matching the circumference value (neck circumference subtracted from

waist circumference plus hip circumference) to the appropriate height in Chart B (Percent Fat Estimation for Females).

The information flow from the medical department to the CFC requires the use of Charts A and B. Additionally, in recommending referral to a level of the rehabilitation program, certain criteria must be considered by the medical officer. To assist the medical department in body fat determination and selection of appropriate rehabilitation program level, the charts and criteria could be programmed into a medical information system. By entering the appropriate circumference measurements and past program participation, the system would generate a memorandum to the CFC which would consist of percent body fat, rehabilitation referral, and eligibility for physical readiness testing. The weight control charts and rehabilitation program criteria are included in Appendix V; the data flow and report elements for a weight control memorandum are in Appendices III and IV.

Other shipboard information flows not previously documented derive from requirements of the atmosphere control program aboard submarines. Atmosphere control, the continuous interchange of air throughout the ship, is as critical to efficient operations as any of the other systems (propulsion, navigation, weapons) aboard ship. Atmosphere contaminants can have deleterious effects on the ship's machinery and equipment, as well as the health of the crew. Three sets of procedures are designed to preclude any adverse consequences of contaminants: proper atmosphere monitoring, proper equipment operations, and control of materials introduced into the submarine.

The medical department representative has many responsibilities in line with the atmosphere control program^{5,14}. Included among these duties are: 1) maintaining a log of prohibited, restricted, and limited items brought on board; 2) maintaining a record of stowage location of such items; 3) advising heads of departments having custody of such items on their proper handling care and disposal; and 4) maintaining a training program to keep the crew informed of the atmosphere control program.

Also within the scope of the medical representative's duties are the tasks of monitoring shipboard atmospheric contamination and atmosphere equipment calibration. Devices used to measure airborne contamination range from a con-

tral atmosphere monitoring system to portable analytical equipment. Medical department personnel are to take measurements daily and weekly and report them to the commanding officer. A daily atmosphere contaminant log is also to be kept so that readings may be compared over a thirty-day period and any trends may be detected. The mini specifications, data flows, and data elements for these two reports are found in the appropriate appendices.

Amphibious Task Force Information Flows

A systems analysis of information flows originating within the medical department must also encompass communications that occur in wartime situations. Indeed, during combat conditions, many of the peacetime reports (e.g. pest control, sanitation) are relatively unimportant in the face of the on-going hostilities. Medical department communications that are of the greatest importance during combat are those dealing with casualty receiving.

Medical regulating of casualties requires a network of task force members, each with specific responsibilities¹⁵. Individual members of the network and their respective functions are: Helicopter Direction Center, Transport Evacuees; Medical Regulating Control Officer, Update Status Boards and Transmit; Medical Regulating Team, Coordinate Evacuees; Whole Blood Program Officer, Coordinate Blood Supply; Task Force Surgeon, Planning and Directing of Casualty Receiving and Treatment; Commander, Amphibious Task Force/Commander, Landing Force, Coordinate Personnel and Resource Support.

The specific communications required by medical regulating procedures are the MEDEVAC Questionnaire, Medical Joining Report, Report of Actual Casualties, Medical Census Report, Spot Status Report, and Whole Blood Report. Briefly, the contents of these messages/reports are: MEDEVAC Questionnaire--casualty/injury information and vital signs; Medical Joining Report--description of shipboard medical resources; Report of Actual Casualty--identification of casualty and next of kin; Medical Census Report--operating beds status and patients' dispositions; Spot Status Report--available beds and surgical backlog; Whole Blood Report--shipboard blood supply, expiration dates, and units required. In addition, triage areas of amphibious ships generally maintain a continually updated status board. This status board provides a dynamic record

of the moment-to-moment medical resources available on the ship. The data flows and data elements for the six reports and status board are in the appendices.

External Operations Data Flows

Besides the reports and messages sent from the medical department to the immediate environs (shipboard personnel, amphibious task force), medical department representatives are at the originating end of information flows that travel to distant Naval commands. These reports, to operations external to the reporting ship's squadron, serve a number of functions such as accident notification and request for supplies.

The external operations information flows begin like the data flows to the Squadron--the reports are prepared by the Medical Department and reviewed by the Commanding Officer. From the OCO (Office of the Commanding Officer), reports travel to a number of Naval agencies for an array of purposes. The reports that make up the data flows, the report receivers, and the reasons for the reports are as follows: an equipment maintenance form is sent to the Navy Medical Material Supply Command so that new medical equipment may be inventoried; Asbestos Surveillance and Hearing Conservation forms are forwarded to the Navy Environmental Health Center for review and analysis of environmental hazards; supply chits are turned over to Naval Supply Center so that the orders may be processed; monthly morbidity reports are mailed to the Navy Medical Data Services Center for review and research into frequently occurring illnesses and injuries; communicable disease reports are transmitted to the Regional Preventive Medicine Unit to instigate measures designed to contain the spread of the disease; accident reports are sent to the Regional Safety Office for review and investigation of cause of accident; surgical procedures reports, medical emergency reports, and quarterly dental reports are all forwarded to the Fleet Commander for review and policy formulation.

Most of these reports are not currently being considered for inclusion into a shipboard medical information system due to data incongruity or a lack of necessity. Report periodicity and data redundancy are major justifications for automation of reports, and the aforementioned equipment maintenance forms, communicable disease reports, surgical procedures report, and medical emergen-

would not significantly benefit. Hearing Conservation forms are filled out only on those ships large enough to have sound booths (generally only carriers). Supply requests and accident reports are important in that information must be sent from the medical department to the shipboard Supply Officer and Safety Officer, but their respective reporting requirements must be kept separate from the responsibilities of the medical departments. The monthly morbidity report is currently inappropriate to include in an information system, because in order to use the computer to tally illness category incidence, there must be greater congruity with the diagnoses currently recorded. Some of these issues will be taken up in the discussion section.

Three reports that may warrant inclusion within a medical report generator deal with Asbestos Surveillance. The first report is the Medical Surveillance Questionnaire that must be completed on all personnel to determine if placement in the Navy Asbestos Medical Surveillance Program is appropriate. A second report, the Periodic Health Evaluation, part respiratory questionnaire and part examination results, is required as part of the Asbestos Program. The third report within the Navy Asbestos Surveillance Program is the roentgenographic interpretation, which is used to describe the findings of the pleural X-ray performed. Appendices III and IV contain the data flows and data elements of the Asbestos Surveillance Reports.

Discussion

As can be deduced from the number of information flows originating within the Medical Department, medical personnel currently spend a great deal of time filling out reports. Many of these reports are logical candidates for automation within the context of a shipboard medical information system. Data flows that are particularly suitable for computerization are those reports that contain numerous elements that would be stored within such a system (crew member name, rank/rate, social security number) and could be readily printed out. The initial functional description outlining report requirements of shipboard medical departments included Medical Disposition Memoranda, Health Record entries, Binnacle List, Sick Call Log, Morning Report of the Sick and Injured, PRP Removal/Reinstatement Memoranda, Accident/Injury Report Elements, Radiation Exposure Reports, Pest Control Report, Medical Supply Inventories, Medical Equipment Inventories, Heat Stress Report, Dental Classification Reports, Controlled Medicinals, and Training Logs and Schedules.

The current systems analysis yielded additional reports within three categories of information flow that should be included in a medical information system. The three types of reporting are 1) intra-ship communications--those reports that originate in the medical department and whose end receivers are other shipboard personnel; 2) amphibious task force communications--those reports and messages concerning casualty receiving and treatment that are transmitted to members of the squadron; and 3) external communications--the reports that are sent to various Naval commands outside the immediate environs of the reporting ship. Data flows documented in the appendices of this report contain redundant information that would be readily accessible once stored in a computerized system (e.g. crew member identification), data based on relatively static variables (e.g. available operating beds), and/or information transmitted that follows a standardized format (e.g. Whole Blood Report). The thirteen data flows contained in the appendices are all reports that are either frequently recurring or reports that would be so under combat conditions. An additional appendix is devoted to the information (percent body fat charts, rehabilitation program criteria) that medical department personnel use and communicate to the Command Fitness Coordinator in conjunction with the weight control program.

The largest segment of the documented data flows deals with the reports and messages required by medical regulating needs in wartime conditions. During combat it is likely that some of the communications required during peacetime operations (sanitation reports, training logs, Asbestos Surveillance Reports) would be of secondary concern. Communications that would become critical in a scenario involving hostilities would be those detailing medical resources and casualties. The need for accuracy in casualty receiving reports is crucial--the efficient transfer of medical personnel, medical supplies, and casualties is requisite to the basic mission of providing health care to the sick and wounded. Medical regulating reports are often transmitted by voice over the medical regulating network, but even so, a computerized format would augment the accurate transmittal of this information. Incorporation of casualty receiving reports into a medical information system might prove invaluable under the conditions in which medical communications are most essential.

The systems analysis of medical department communications also pointed out

tem. The first concern is that of inclusion of reports that normally fall outside the medical department representative's responsibilities. Reports that medical personnel contribute to, but are not generally responsible for, are Accident/Injury Reports, Weight Control Reports, Supply Reports, and on those ships without a physician, Controlled Medicinal Reports. Ultimate responsibility for these communications are with, respectively, the Safety Officer, Command Fitness Coordinator, Supply Officer, and the Controlled Medicinals Board. The goal of medical department computerization is to relieve the burden on an already overtaxed department. The providing of pertinent medical information to these individuals is important, but inclusion of inappropriate standardized report formats in a medical system would be the first step in the shift of additional responsibilities to medical department personnel.

A second issue of concern to the development of a medical information system is the standardization of medical diagnoses. Monthly morbidity tallies require the reporting of categories of inpatient disease and injuries. Currently, health record entries follow a format that requires only a textual description of the medical problem. Computerization of these entries with the additional requirement of a numerical diagnoses (e.g. ICD9 codes) or indication of specific disease category would allow the computer to perform the time consuming calculations required by the monthly morbidity report. Readily accessible tallies of disease or accident incidence might also prove useful to shipboard policy formulation.

The third factor of great importance to medical information systems design is the variability in reporting requirements among Type Commands and individual ships. That a reporting requirement only pertains to one third, or to half of Navy ships should not preclude its incorporation into an information system. Atmosphere control reports are a case in point. Though generally only applicable to submarines, the demands of this requirement justify their inclusion. Similarly, Aeromedical Clearance, Hearing Conservation Reports, TLD Audits, and Quarterly Training Reports are required of particular TYCOMS. Individual ships also have requirements for a range of additional medical reports (e.g. Preventive Medicine Reports, Quality Assurance Reports, Monthly Watch Report, Monthly Meals Ready to Eat Report). This variability in repor-

into any medical information system developed. A report customization feature would allow medical department personnel to generate individualized reports with any of the variables stored in the system. For instance, if a listing of "health problems by division" or a tabulation of the "number of crew members with AB negative blood type" was needed, a customization function of the report generator would allow for these needs. Report customization could also be used to generate data for those reports with low periodicity or that were situational (e.g. Monthly Surgical Procedures Report, Medical Emergency Reports). Furthermore, this function would ensure that a medical information system did not become outdated by future unanticipated reporting requirements.

Demand was great (91%) for a word processing function that would allow form letters and messages to be compiled². This function would also alleviate the need for all reports to be hard-wired into the system. Reports that are submitted infrequently could be formatted into the word processor by the medical department representative and retained for future use. This feature would also be particularly useful for those reports and logs that are basically textual (Communicable Disease Reports, Medical Department Journal, health record verification).

The information requirements of shipboard medical departments are extensive. Medical information is transferred from the department to health records, shipboard personnel, squadron personnel, and external agencies. Reports that are frequently required and used by large segments of the forces afloat should be written into software developed for a medical information system. Any such system should also incorporate report customization and word processing capabilities so that variations in reporting requirements may be satisfied. Finally, a medical information system must be capable of handling the data flows required by combat conditions as well as the day-to-day demands of a peacetime situation. Reducing the time consumed by medical report writing and enhancing the accuracy of the data on reports would clearly benefit health care providers and the crew members they treat.

REFERENCES

1. Naval Health Research Center. Shipboard Independent Duty Corpsmen Study, Briefing Report. November, 1985.
2. Blood, C.G., Brand, D.M.P., Pugh, W.M., Helmkamp, J.C. Shipboard Medical Information System Needs Among Surface Ships, Report No. 87-18. Naval Health Research Center, San Diego, 1987.
3. Tri-Service Medical Information System. Functional Description for the Shipboard Automated Medical Support System. March, 1986.
4. COMNAVSURFPACINST 6000.1C, Shipboard Medical Procedures Manual. Commander Surface Pacific Fleet.
5. COMSUBPACINST 5400.19, Standard Submarine Medical Department Organization Manual. Commander Submarine Pacific Fleet.
6. COMNAVAIRPACINST 6000.2A, Shipboard Medical Procedures Manual. Commander Air Pacific Fleet.
7. COMNAVSURFLANTINST 6000.1D, Shipboard Medical Guide. Commander Surface Atlantic Fleet.
8. COMNAVAIRLANTINST 6000.1B, Shipboard Medical Procedures Manual, Commander Air Atlantic Fleet.
9. Crano, W.D., Brewer, M.B. Principles and Methods of Social Research. Allyn and Bacon, MA, 1986.
10. Yourdon, E., Constantine, L.L. Structured Design: Fundamentals of a Discipline of Computer Program and Systems Design. Prentice-Hall, Inc., NJ, 1979.
11. DeMarco, T. Structured Analysis and System Specification. Yourdon, Inc., NY, 1979.

12. DoD Directive 1308.1. Physical Fitness and Weight Control. Department of Defense, 1981.

13. OPNAVINST 6110.1C. Physical Readiness Program. Chief of Naval Operations, August 1986.

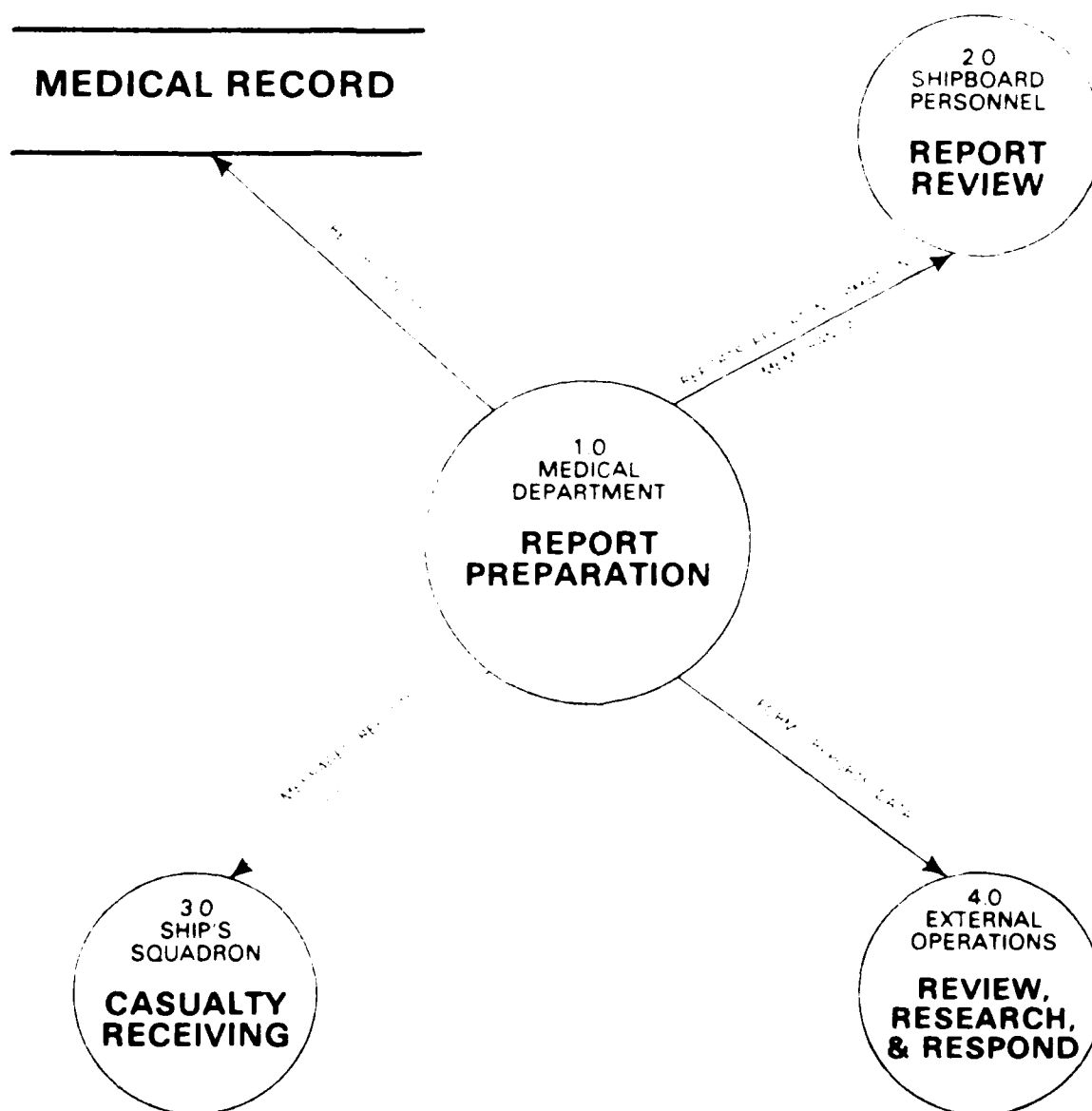
14. NAVSEA S9510.AB.ATM-010. Nuclear Powered Submarine Atmosphere Control. Naval Sea Systems Command.

15. COMPHIBGRUTHREEINST 6320.1A. Joint Standard Operating Procedures for Medical Regulating in the Amphibious Objective Area.

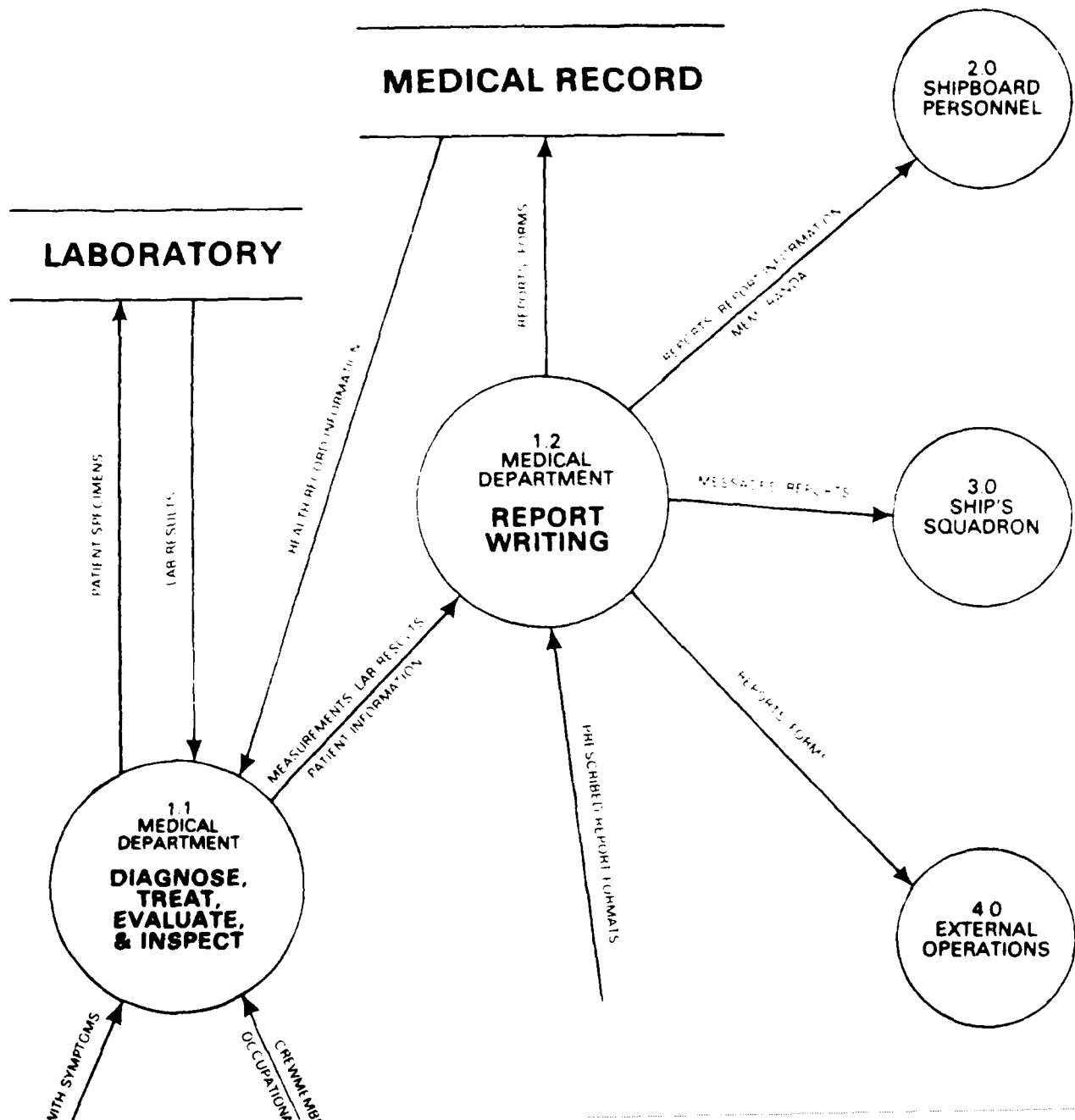
APPENDIX I

DATA FLOW DIAGRAMS

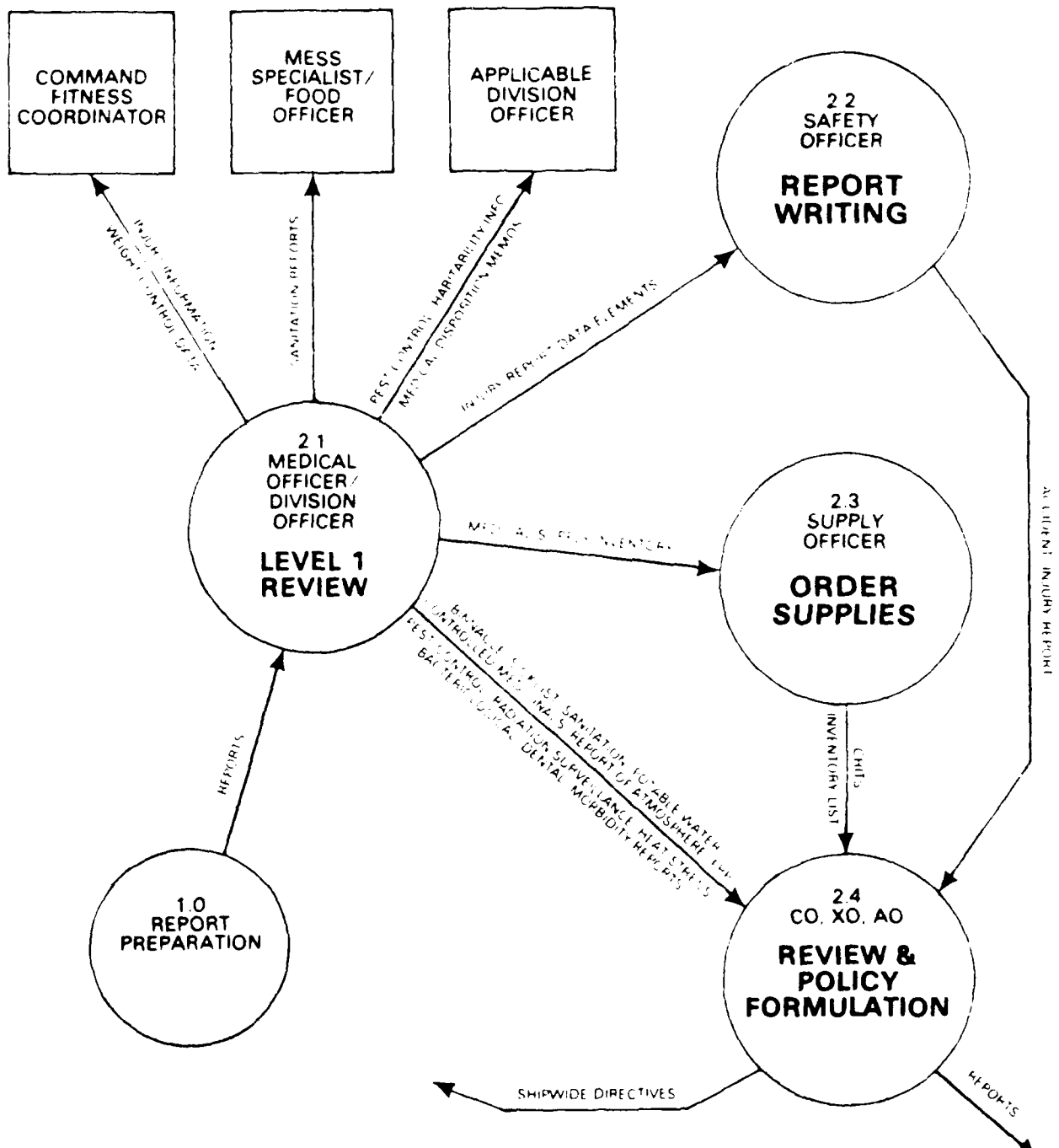
0.0 SHIPBOARD MEDICAL INFORMATION FLOWS



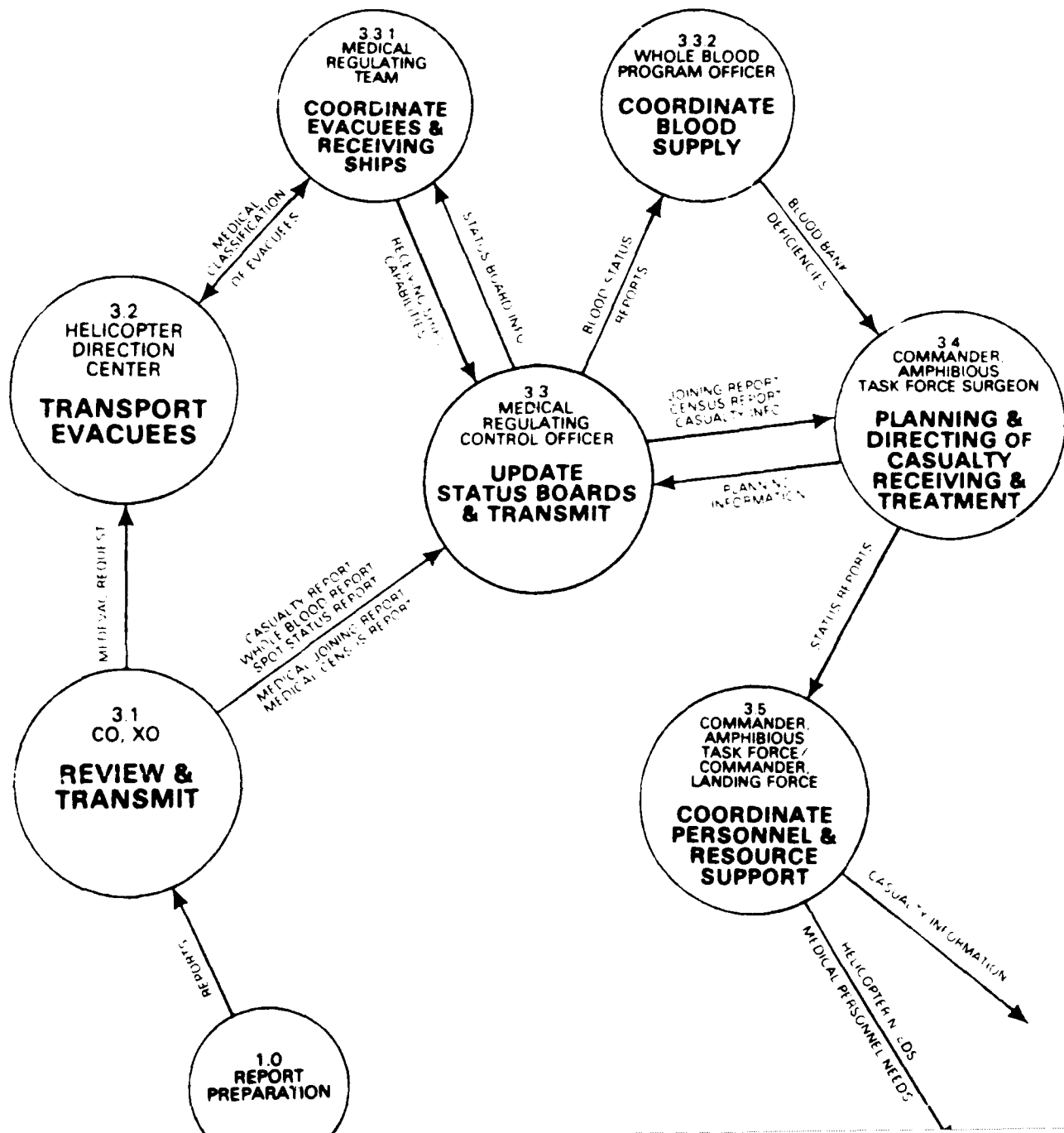
1.0 MEDICAL REPORT PREPARATION



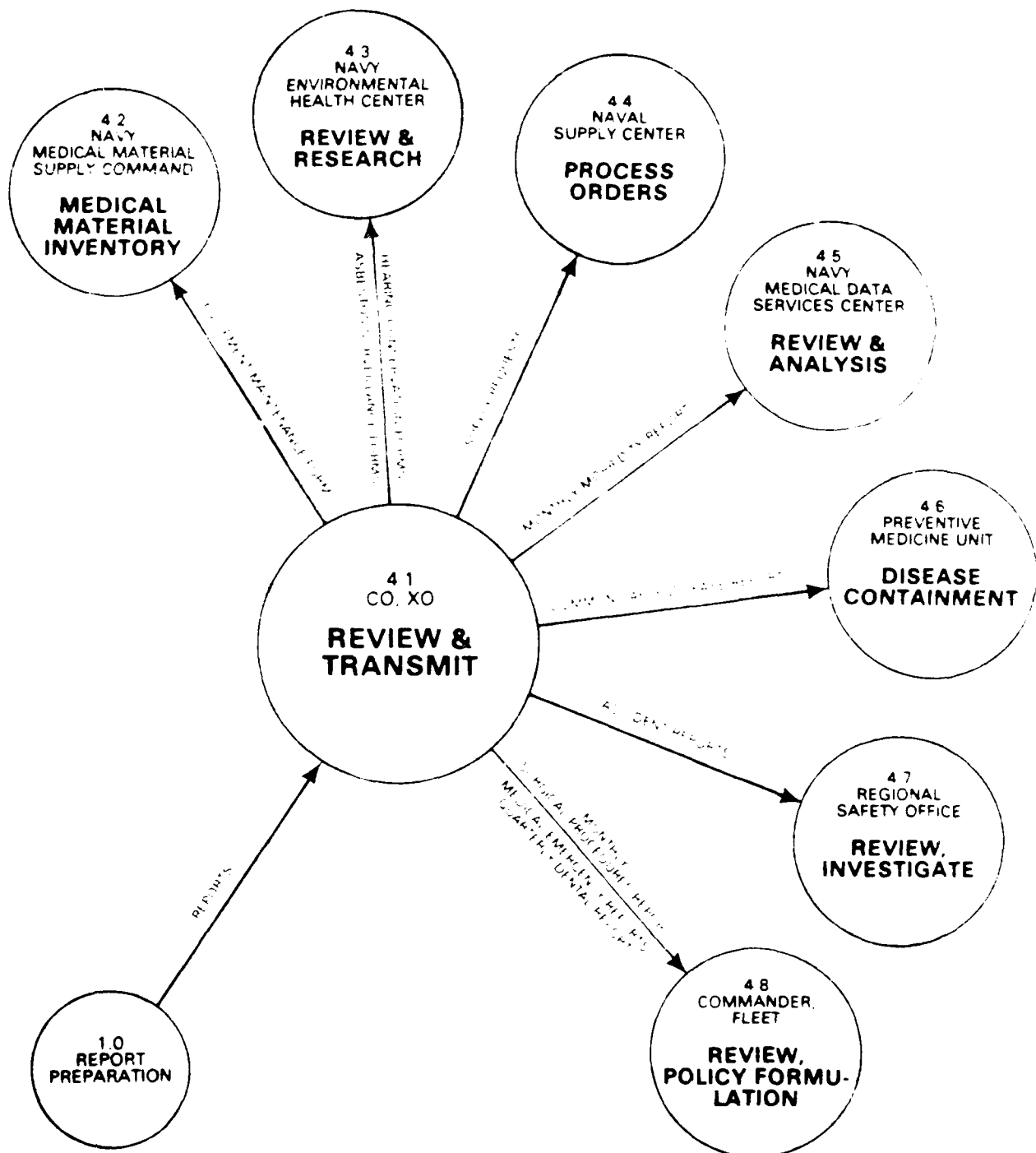
2.0 SHIPBOARD PERSONNEL MEDICAL INFORMATION REVIEW



3.0 CASUALTY RECEIVING INFORMATION TRANSMITTAL



4.0 EXTERNAL OPERATIONS INFORMATION REVIEW



APPENDIX II

MINI SPECIFICATIONS

1.0 Medical Report Preparation

Process Number: 1.1

Process Name: Diagnose, treat, evaluate, and inspect

Diagnose and treat sick and injured.

Evaluate and record environmental exposures.

Inspect ship areas for sanitation and habitability.

Evaluate medical supply inventory.

Process Number: 1.2

Process Name: Report Writing

Receive all patient data, lab results, measurements.

Complete appropriate form, report, chit.

2.0 Shipboard Personnel Medical Information Review

Process Number: 2.1

Process Name: Level 1 Review

Medical officer/division officer receives and reviews reports.

Reports submitted to appropriate shipboard personnel.

Process Number: 2.2

Process Name: Report Writing (Safety Officer)

Safety Officer receives information on accidents.

Accident/injury report filled out and submitted.

Process Number: 2.3

Process Name: Order Supplies

Supply Officer receives medical supply inventory.

Supply chits filled out and transmitted.

Process Number: 2.4

Process Name: Report Review and Policy Formulation

Commanding Officer and staff receive and review all reports.

Shipboard policies formulated based on report contents.

3.0 Casualty Receiving Information Transmittal

Process Number: 3.1

Process Name: Review and Transmit Medical Messages

Commanding Officer receives and reviews casualty receiving information.

Reports/messages transmitted to squadron personnel.

Process Number: 3.2

Process Name: Transport Evacuees

Helicopter direction center receives medevac request.

Casualty evacuated to CR&T ship.

Process Number: 3.3

Process Name: Update Status Boards and Transmit

Medical Regulating Control Officer receives all casualty/ status reports.

Transmit status reports to appropriate personnel.

Process Number: 3.3.1

Process Name: Coordinate Evacuees and Receiving Ships.

Medical Regulating Team receives status board information.

Transmits CR&T ship status to MRCO.

Informs helicopter of available receiving ships.

Process Number: 3.3.2

Process Name: Coordinate Blood Supply

Whole Blood Program Officer receives blood status reports.

Fills blood requests when possible.

Apprises task force surgeon of blood bank deficiencies.

Process Number: 3.4

Process Name: Planning and Directing of Casualty Receiving and Treatment

CATF surgeon receives casualty information, medical resource needs.

Coordinate "walking blood bank" withdrawals.

Direct Medical Regulating Control Officer.

Process Number: 3.5

Process Name: Coordinate Personnel and Resource Support.

Commander, Amphibious Task Force receives status reports.

Transmit casualty information.

Request additional helicopter support/medical personnel.

4.0 External Operations Information Review

Process Number: 4.1

Process Name: Review and Transmit Reports

Commanding Officer receives/reviews reports from medical department

Reports transmitted to external operations.

Process Number: 4.2

Process Name: Medical Material Inventory

Navy Medical Material Supply Command receives forms.

Document presence of new medical equipment aboard ship.

Process Number: 4.3

Process Name: Review and Research Occupational Exposures

Navy Environmental Health Center receives reports.

Review individual reports and analyze population data.

Process Number: 4.4

Process Name: Process Orders

Naval Supply Center receives supply charts.

Supply requests processed and orders filled.

Process Number: 4.5

Process Name: Review and Analysis of Morbidity Data

Navy Medical Data Services Center receives monthly morbidity reports.

Review individual reports and analyze population data.

Process Number: 4.6

Process Name: Disease Containment

Preventive Medicine Unit receives communicable disease reports.

Send personnel/reports to known sources of communicable disease.

Process Number: 4.7

Process Name: Review and Investigate Accidents

Regional Safety Office receives accident reports.

Review accident report and investigate.

Process Number: 4.8

Process Name: Report Review and Policy Formulation

Fleet Commander receives surgical, emergency, and dental reports.

Review reports and issue directives concerning medical procedures.

APPENDIX III

DATA FLOWS

DATA NAME: WEIGHT CONTROL MEMORANDUM

DESCRIPTION: REPORT OF PERCENT BODY FAT DETERMINATION AND PRT
ELIGIBILITY

COMPOSITION: CREWMEMBER-NAME+CREW-RANK/RATE+CREW-SSN+CREW-AGE+
CREW-SEX+PERCENT-BODY-FAT+PHYSICAL-READINESS-
TESTING-ELIGIBILITY+REHABILITATION-PROGRAM-
REFERRAL-LEVEL

DATA NAME: ATMOSPHERE CONTROL REPORT

DESCRIPTION: DAILY REPORT OF ATMOSPHERE ELEMENT LEVELS AND EQUIPMENT
FUNCTIONALITY

COMPOSITION: 24-HOUR-PERIOD-ENDING-2359-DATE+DATE-LAST-VENTILATED+
REMARKS+O₂-MAXIMUM+O₂-MINIMUM+O₂-HOURS-OUT-OF-
SPECIFICATION+CO₂-MAXIMUM+CO₂-HOURS-OUT-OF-
SPECIFICATION+CO-MAXIMUM+CO-HOURS-OUT-OF-SPECIFICATION+
R12-MAXIMUM+R12-HOURS-OUT-OF-SPECIFICATION+OTHER-
REFRIGERANT-MAXIMUM+H₂-MAXIMUM+O₂-BANK-PRESSURE1+O₂-
BANK-PRESSURE2+O₂-BANK-PRESSURE3+O₂-BANK-PRESSURE4+O₂-
BLEED-RATE-FORWARD+O₂-BLEED-RATE-AFT+O₂-CANDLES-ON-
BOARD+{ATMOSPHERE-CONTROL-EQUIPMENT-OUT-OF-COMMISSION}

DATA NAME: DAILY ATMOSPHERE CONTAMINANT LOG

DESCRIPTION: RECORD OF ATMOSPHERE CONTAMINANT LEVELS FOR
COMPARISONS OVER TIME

COMPOSITION: DATE+{ TIME+SAMPLE-POINT+OXYGEN-LEVEL+CARBON-
DIOXIDE-MAXIMUM+CARBON-MONOXIDE-MAXIMUM+R12-
MAXIMUM+OTHER-REFRIGERANT-MAXIMUM+HYDROGEN-
MAXIMUM}+O₂-PERCENT-WEEKLY-PORTABLE-READING+
CO₂-PERCENT-WEEKLY-PORTABLE-READING+ACETONE-
LEVEL+AMMONIA-LEVEL+BENZENE-LEVEL+CARBON-
MONOXIDE-LEVEL+CHLORINE-LEVEL+HYDRAZINE-LEVEL+
HYDROCARBON-LEVEL+HYDROCHLORIC-ACID-LEVEL+
NITROGEN-DIOXIDE-LEVEL+OZONE-LEVEL+SULPHUR-
DIOXIDE-LEVEL+TOLUENE-LEVEL+TRICHLOROETHANE-
LEVEL+TRICHLORETHYLENE-LEVEL+OTHER-
CONTAMINANT1-LEVEL+OTHER-CONTAMINANT2-LEVEL+
OTHER-CONTAMINANT3-LEVEL+OTHER-CONTAMINANT4-
LEVEL+TOTAL-HYDROCARBON-LEVEL+(THA-R11-LEVEL+
THA-R12-LEVEL+THA-R114-LEVEL)+(THA-METHANE-
LEVEL+THA-VINYLDENE-LEVEL+THA-CHLORIDE-LEVEL+
THA-FREON113-LEVEL+THA-METHYL-LEVEL+THA-
CHLOROFORM-LEVEL+THA-BENZENE-LEVEL+THA-
TRICHLOROETHYLENE-LEVEL+THA-REMAINING-
HYDROCARBONS-LEVEL)

DATA NAME: MEDEVAC QUESTIONNAIRE

DESCRIPTION: MANDATORY INFORMATION ON ALL MEDEVAC PATIENTS

COMPOSITION: CREW-MEMBER-NAME+CREW-MEMBER-AGE+MEDEVAC-
PLACE-OF-DEPARTURE+MEDEVAC-METHOD-OF-ARRIVAL+
ESTIMATED-TIME-OF-ARRIVAL+[TRANSPORTED-BY-
STRETCHER|AMBULATORY]+[TRANSPORTED-WITH-
PRESSURE-DRESSING-FOR-BLEEDING|OXYGEN|ORAL-
AIRWAY|INTRAVENOUS-LINE|NONE]+BRIEF-
IMPRESSION-OF-WHAT-IS-WRONG+[ESTIMATE-OF-
SERIOUSNESS-IS-STABLE-CONDITION|ACCOMPANIED-
BY-CORPMAN|UNCONCIOUSNESS]+TIME-INTERVAL-
SINCE-SICK-OR-INJURED+BLOOD-PRESSURE+PULSE+
RESPIRATIONS-PER-MINUTE+TEMPERATURE+
[PRELIMINARY-EVALUATION-PERFORMED-BY-WITNESS|
CORPMAN MEDICAL-OFFICER]

DATA NAME: MEDICAL JOINING REPORT

DESCRIPTION: REPORT TO COMMANDER, TASK FORCE OF MEDICAL
RESOURCES STATUS

COMPOSITION: SHIP-UNIT-IDENTIFICATION-CODE+MEDICAL-JOINING-
REPORT-DATE+MEDICAL-JOINING-REPORT-TIME+NUMBER-OF-
DEDICATED-OPERATING-ROOMS+NUMBER-OF-OTHER-
OPERATING-AREAS-EQUIPPED-WITH-SUITABLE-EQUIPMENT+
NUMBER-OF-FIXED-XRAY-MACHINES+NUMBER-OF-PORTABLE-
XRAY-MACHINES+NUMBER-OF-REFRIGERATORS-IN-SICK-BAY+
TOTAL-CAPACITY-IN-BLOOD-UNITS-OF-REFRIGERATORS+
{NUMBER-OF-WHOLE-BLOOD-UNITS-ON-HAND-BY-ABO/RH-
TYPES}+{NUMBER-OF-WALKING-BLOOD-DONORS-BY-ABO/RH-
TYPE}+NUMBER-OF-ICU-BEDS-AVAILABLE+NUMBER-OF-OTHER-
SICK-BAY-BEDS+NUMBER-OF-OVERFLOW-BEDS+{SHIPS-
COMPANY-MEDICAL-DENTAL-CREW-MEMBER-NAME+CREW-RANK/
RATE+CREW-NOBC/NEC}+{EMBARKED-MEDICAL-REGULATING-
TEAM-CREW-NAME+CREW-RANK/RATE+CREW-NOBC/NEC}+
{EMBARKED-NON-LANDING-FORCE-MEDICAL/DENTAL-CREW-
MEMBER-NAME+CREW-RANK/RATE+CREW-NOBC/NEC}+
{ADDITIONAL-LANDING-FORCE-MEDICAL-CREW-MEMBER-NAME+
CREW-RANK/RATE+CREW-NOBC/NEC}

DATA NAME: REPORT OF ACTUAL CASUALTY

DESCRIPTION: IDENTIFICATION OF CASUALTY AND KIN NOTIFICATION DATA

COMPOSITION: { CREW-MEMBER-NAME+CREW-MEMBER-RATE/RANK+CREW-MEMBER-SSN+CREW-MEMBER-PARENT-COMMAND+DIAGNOSIS+(ICD9-CODE)+SECONDARY-DIAGNOSIS+(SECICD9-CODE)+[AMBULATORY| LITTER-PATIENT]+CREW-MEMBER-CONDITION+CREW-MEMBER-PROGNOSIS+NEXT-OF-KIN-NAME+NEXT-OF-KIN-STREET+NEXT-OF-KIN-CITY+NEXT-OF-KIN-STATE+NEXT-OF-KIN-COUNTRY+NEXT-OF-KIN-ZIP-CODE+NEXT-OF-KIN-PHONE-NUMBER+NEXT-OF-KIN-RELATIONSHIP+SECONDARY-NEXT-OF-KIN-NAME+SECONDARY-NEXT-OF-KIN-STREET+SECONDARY-NEXT-OF-KIN-CITY+SECONDARY-NEXT-OF-KIN-STATE+SECONDARY-NEXT-OF-KIN-COUNTRY+SECONDARY-NEXT-OF-KIN-ZIP-CODE+SECONDARY-NEXT-OF-KIN-PHONE-NUMBER+SECONDARY-NEXT-OF-KIN-RELATIONSHIP+MEDICAL-SERVICE-REFERRAL-REQUESTED?+(REFERRAL-EARLIEST-DATE-AVAILABLE-FOR-TRANSPORTATION?)+(REFERRAL-EARLIEST-TIME-AVAILABLE-FOR-TRANSPORTATION?)+(REFERRAL-EARLIEST-GROUP-AVAILABLE-FOR-TRANSPORTATION?)+EVACUATION-OUT-OF-OPAREA-REQUESTED?+(EVACUATION-OPAREA-EARLIEST-DATE-AVAILABLE-FOR-TRANSPORTATION?)+(EVACUATION-OPAREA-EARLIEST-TIME-AVAILABLE-FOR-TRANSPORTATION?)+(EVACUATION-OPAREA-EARLIEST-GROUP-AVAILABLE-FOR-TRANSPORTATION?) }

DATA NAME: MEDICAL CENSUS REPORT

DESCRIPTION: REPORT TO COMMANDER, TASK FORCE OF PATIENT/BED
STATUS

COMPOSITION: MEDICAL-UNIT-REPORTING+(LOCATION-OF-UNIT-
REPORTING-IF-CHANGED-SINCE-LAST-REPORT)+DATE-
AT-END-OF-REPORT-PERIOD+TIME-AT-END-OF-REPORT-
PERIOD+GROUP-AT-END-OF-REPORT-PERIOD+TOTAL-
OPERATING-BEDS-AT-END-OF-REPORT-PERIOD+MEDICAL-
OPERATING-BEDS-LANDING-FORCE-ONLY+SURGICAL-
OPERATING-BEDS-LANDING-FORCE-ONLY+
NEUROPSYCHIATRIC-OPERATING-BEDS-HOSPITAL-
COMPANY-ONLY+TOTAL-PATIENTS-ADMITTED-DURING-
PERIOD-BY-SERVICE-STATUS+TOTAL-BEDS-UNOCCUPIED-
AT-END-OF-PERIOD+MEDICAL-BEDS-UNOCCUPIED-
LANDING-FORCE-ONLY+SURGICAL-BEDS-UNOCCUPIED-
LANDING-FORCE-ONLY+NEUROPSYCHIATRIC-BEDS-
UNOCCUPIED-HOSPITAL-COMPANY-ONLY+TOTAL-
PATIENTS-REMAINING-AT-END-OF-PERIOD-BY-SERVICE-
STATUS+TOTAL-PATIENTS-RETURNED-TO-DUTY-DURING-
PERIOD+TOTAL-PATIENTS-EVACUATED-DURING-PERIOD+
TOTAL-DEATHS-IN-FACILITIES-DURING-PERIOD-BY-
SERVICE-STATUS+PATIENTS-REQUIRING-EVACUATION+
PATIENTS-READY-FOR-EVACUATION-NOT-PREVIOUSLY-
REPORTED+PATIENTS-READY-FOR-EVACUATION-
PREVIOUSLY-REPORTED-BUT-NOT-EVACUATED+UNUSUAL-

INCIDENCE-OR-OCCURENCE-OF-DISEASE-OR-INJURY+
TOTAL-OUTPATIENT-VISITS-DURING-PERIOD+
UNRESOLVED-MEDICAL-LOGISTICAL-PROBLEMS+
UNRESOLVED-MEDICAL-PERSONNEL-PROBLEMS+CASUALTY-
ADMISSION-DATE+CASUALTY-ADMISSION-TIME+
{ADMISSIONS-CREW-NAME+CREW-RANK/RATE+CREW-SSN+
CREW-SERVICE+CREW-DIAGNOSIS+CREW-ESTIMATED-
LENGTH-OF-HOSPITALIZATION+CREW-PARENT-COMMAND}+
{RETURNED-TO-DUTY-CREW-NAME+CREW-RANK/RATE+
CREW-SSN+CREW-SERVICE+CREW-DIAGNOSIS+CREW-
PARENT-COMMAND}+{INTRA-ATF-PATIENT-TRANSFER-
CREW-NAME+CREW-RANK/RATE+CREW-SSN+CREW-SERVICE+
CREW-DIAGNOSIS+CREW-COMMAND-TRANSFERRED-FROM+
CREW-COMMAND-TRANSFERRED-TO}+{OUT-OF-AOA/ATF-
MEDEVACS-CREW-NAME+CREW-RANK/RATE+CREW-SSN+
CREW-SERVICE+CREW-DIAGNOSIS+COMMAND-
TRANSFERRED-FROM+COMMAND-TRANSFERRED-TO}

DATA NAME: SPOT STATUS REPORT

DESCRIPTION: REPORT TO MEDICAL REGULATING CENTER OF BED/SURGICAL
BACKLOG STATUS

COMPOSITION: SPOT-STATUS-REPORT-DATE+STATUS-REPORT-STARTING-TIME+
STATUS-REPORT-ENDING-TIME+NUMBER-OF-BEDS-AVAILABLE+
NUMBER-OF-BEDS-OCCUPIED+SECNUMBER-OF-BEDS-OCCUPIED+
(HOURS-OF-SURGICAL-BACKLOG)+NUMBER-OF-PATIENTS-
TRANSFERRED-OUT-OF-AMPHIBIOUS-OPERATING-AREA+REMARKS

DATA NAME: WHOLE BLOOD REPORT

DESCRIPTION: REPORT OF REQUIRED BLOOD OR BLOOD PRODUCTS

COMPOSITION: DATE-AT-END-OF-REPORT-PERIOD+TIME-AT-END-OF-REPORT-
PERIOD+GROUP-AT-END-OF-REPORT-PERIOD+UNIT/FACILITY-
REPORTING+(UNIT-LOCATION)+{NUMBER-OF-UNITS-ON-HAND}+
{BLOOD-GROUP/TYPE-ON-HAND}+{LATEST-EXPIRATION-DATE-
OF-BLOOD-ON-HAND}+TOTAL-UNITS-TRANSFUSED-DURING-
PERIOD+TOTAL-UNITS-EXPIRED-DURING-PERIOD+{ESTIMATED-
UNITS-REQUIRED-FOR-NEXT-TEN-DAYS}+{GROUP/TYPE-
REQUIRED-FOR-NEXT-TEN-DAYS}+DESIRED-DELIVERY-DATE-
FOR-ESTIMATED-REQUIREMENTS+DESIRED-DELIVERY-
DESTINATION-FOR-ESTIMATED-REQUIREMENTS+RECEIVING-
OFFICIAL-AT-DESTINATION

DATA NAME: STATUS BOARD REPORT

DESCRIPTION: TRIAGE AREA RECORD OF MEDICAL RESOURCES AVAILABLE

COMPOSITION: {PATIENT-NUMBER+PATIENT-BLOOD-TYPE+DIAGNOSIS+
OPERATING-ROOM-NUMBER+PRIORITY-NUMBER+ESTIMATED-
TIME-OF-COMPLETION+IN-POST-OP?+THORACIC-GENERAL-
OPERATING-ROOM-BACKLOG-TIME+NEURO-ORTHO-OPERATING-
ROOM-BACKLOG-TIME+XRAYS-NEEDED?+TIME-AT-FACILITY-
AVAILABILITY-CHECK+NUMBER-OF-WARD-BEDS-AVAILABLE+
NUMBER-OF-ICU-BEDS-AVAILABLE+NUMBER-OF-OVERFLOW-
BEDS-AVAILABLE+TIME-AT-BLOOD-AVAILABILITY-CHECK+
UNITS-OF-O-POSITIVE-AVAILABLE+UNITS-OF-O-NEGATIVE-
AVAILABLE+UNITS-OF-A-POSITIVE-AVAILABLE+UNITS-OF-
A-NEGATIVE-AVAILABLE+UNITS-OF-B-POSITIVE-AVAILABLE
+UNITS-OF-B-NEGATIVE-AVAILABLE+UNITS-OF-AB-
POSITIVE-AVAILABLE+UNITS-OF-AB-NEGATIVE-AVAILABLE}

DATA NAME: MEDICAL SURVEILLANCE QUESTIONNAIRE

ALIAS: OPNAV 5100/15

DESCRIPTION: OCCUPATIONAL HISTORY AS PART OF THE NAVY ASBESTOS
MEDICAL SURVEILLANCE PROGRAM

COMPOSITION: DATE-OF-SUBMISSION+NAME+RANK/RATE+SHIP-MILITARY-
UNIT-CODE+SEX+DATE-OF-BIRTH+CURRENT-JOB-DESIG-
NATION+⁵₁{[MILITARY-UNIT|COMPANY]+DATE-STARTED+
DATE-ENDED+[FULL-TIME|PART-TIME]+JOB-TITLE+WORK-
ACTIVITIES+POTENTIAL-PHYSICAL-HAZARDS-EXPOSED-TO+
POTENTIAL-CHEMICAL-HAZARDS-EXPOSED-TO+PROTECTIVE-
EQUIPMENT-WORN}+³₁{SECONDARY-JOB-HELD+DATE-STARTED+
DATE-ENDED}+⁴₁{HOBBY-OR-ACTIVE-SPORT+DATE-STARTED+
DATE-ENDED}+⁵₁{WORK-RELATED-EXPERIENCE-PERCEIVED-AS
BEING-HARMFUL-TO-YOUR-HEALTH}+REVIEWING-MEDICAL-
DEPARTMENT-OFFICIAL+AMSP-PLACEMENT-RECOMMENDATION

DATA NAME: PERIODIC HEALTH EVALUATION

ALIAS: MED 626C-9

DESCRIPTION: RESPIRATORY QUESTIONNAIRE AND EXAMINATION RESULTS
AS PART OF NAVY ASBESTOS MEDICAL SURVEILLANCE
PROGRAM

COMPOSITION: EXAMINATION-FACILITY-UIC+(CONTROL-NUMBER)+
CREW-MEMBER-NAME+DATE-OF-BIRTH+SEX+YEARS-GOV'T-
SERVICE+TODAYS-DATE+RACE+BRANCH-OF-SERVICE+
RATE/RANK+EXAM-PURPOSE+HULL-NUMBER+CURRENTLY-
EXPOSED-TO-ASBESTOS?+(IS EXPOSURE CONTINUOUS?)+
(NUMBER-YEARS-EXPOSED?)+(AGE-FIRST-EXPOSED?)+
USUALLY-HAVE-COUGH?+USUALLY-HAVE-PHLEGM?+
USUALLY-HAVE-WHEEZING?+USUALLY-HAVE-SHORTNESS-
OF-BREATH?)+EVER-SMOKED-CIGARETTES?+(WHAT-AGE-
BEGAN?)+(HOW-MUCH-DO/DID-YOU-SMOKE?)+(WHAT-AGE-
WHEN-QUIT?)+EVER-SMOKE-PIPE/CIGARS?+(HOW-MANY-
YEARS-SMOKE-PIPE/CIGARS)+EVER-HOSPITALIZED-
FOR-LUNG-DISEASE?+WEIGHT+HEIGHT+STATURE+CHEST-
CONFIGURATION+CLUBBING-STATUS+CRACKLES-TYPE+
WHEEZES-TYPE+FVC+FEV1

DATA NAME: NAVY ASBESTOS MEDICAL SURVEILLANCE

ROENTGENOGRAPHIC INTERPRETATION

ALIAS: NEHC 6260-2

DESCRIPTION: INTERPRETATION OF PLEURAL X-RAY RECEIVED AS PART
OF NAVY ASBESTOS MEDICAL SURVEILLANCE PROGRAM

COMPOSITION: CREW-MEMBER-NAME+(LOCAL-X-RAY-NO.)+SOCIAL-SECURITY-
NUMBER+(FOREIGN-NATIONAL)+DATE-OF-PHYSICAL-EXAM+
DATE-OF-X-RAY+FILM-QUALITY+(IF-FILM-UNREADABLE-
REASON-FOR-UNREADABILITY)+IS-FILM-COMpletely-
NEGATIVE?+EXAMINING-FACILITY-UNIT-IDENTIFICATION-
CODE+(IF-FILM-NOT-NEGATIVE,--SMALL-OPACITIES-
ROUNDED(SOR)-TYPE+SOR-PROFUSION+SOR-ZONES+SMALL-
OPACITIES-IRREGULAR(SOI)-TYPE+SOI-PROFUSION+SOI-
ZONES+COMBINED-PROFUSION+LARGE-OPACITIES-SIZE+
LARGE-OPACITIES-TYPE+PLEURAL-THICKENING(PT)-
COSTROPHRENIC-ANGLE+PT-WALLS-AND-DIAPHRAGM-SITE+
PT-WIDTH+PT-EXTENT+PT-PLEURAL-PLAQUE+PT-CERTAINTY-
OF-PLAQUE+ILL-DEFINED-DIAPHRAGM+ILL-DEFINED-CARDIAC-
OUTLINE+PLEURAL-CALCIFICATION(PC)-DIAPHRAGM+PC-WALL+
PC-OTHER-SITES+PC-GRADE-OF-A/B/C+QUALIFIER-AND-
OBLIGATORY-SYMBOLS+OTHER-SIGNIFICANT-ABNORMALITY+
OTHER-COMMENTS+SHOULD-EXAMINEE-SEE-DOCTOR-BECAUSE-
OF-COMMENTS?)+FILM-READER'S-ID-NO.+DATE-OF-READING

APPENDIX IV

DATA DICTIONARY ELEMENTS

WEIGHT CONTROL MEMORANDUM ELEMENTS

CRWNAME	CREW-MEMBER-NAME LENGTH 040 CHARACTER
CREWRR	CREW-MEMBER-RANK-RATE LENGTH 020 CHARACTER
CREWSSN	CREW-MEMBER-SSN LENGTH 009 CHARACTER
CRWAGE	CREW-MEMBER-AGE LENGTH 002 NUMERIC
CRWSEX	CREW-SEX LENGTH 001 CHARACTER #LST M,F,U
CRWHGT	CREW-MEMBER-HEIGHT LENGTH 005 NUMERIC
WCNECK	NECK-CIRCUMFERENCE LENGTH 004 NUMERIC
WCABDOM	ABDOMINAL-CIRCUMFERENCE LENGTH 004 NUMERIC
WCWAIST	WAIST-CIRCUMFERENCE LENGTH 004 NUMERIC
WCHIP	HIP-CIRCUMFERENCE LENGTH 004 NUMERIC
WCLEV2	PREVIOUS-THREE-YEAR-CAAC-PARTICIPATION LENGTH 001 CHARACTER #LST Y,N,U
WCLEV3	PREVIOUS-THREE-YEAR-LEVEL3-PARTICIPATION LENGTH 001 CHARACTER #LST Y,N,U

ATMOSPHERE CONTROL REPORT ELEMENTS

ATMDATE	ATMOSPHERE-REPORT-DATE
LENGTH	007 CHARACTER
ATMVDAT	DATE-LAST-VENTILATED
LENGTH	007 CHARACTER
ATMVREM	REMARKS
LENGTH	040 CHARACTER
ATMO2MX	OXYGEN-MAXIMUM
LENGTH	003 CHARACTER
ATMO2MIN	OXYGEN-MINIMUM
LENGTH	003 CHARACTER
ATMO2HS	OXYGEN-HOURS-OUT-OF-SPECIFICATION
LENGTH	002 CHARACTER
ATMCO2MX	CARBON-DIOXIDE-MAXIMUM
LENGTH	003 CHARACTER
ATMCO2HS	CARBON-DIOXIDE-HOURS-OUT-OF-SPECIFICATION
LENGTH	002 CHARACTER
ATMCOMAX	CARBON-MONOXIDE-MAXIMUM
LENGTH	003 CHARACTER
ATMCOHS	CARBON-MONOXIDE-HOURS-OUT-OF-SPECIFICATION
LENGTH	002 CHARACTER
ATMR12MX	REFRIGERANT12-MAXIMUM
LENGTH	004 CHARACTER
ATMR12HS	REFRIGERANT12-HOURS-OUT-OF-SPECIFICATION
LENGTH	002 CHARACTER
ATMORMX	OTHER-REFRIGERANT-MAXIMUM
LENGTH	004 CHARACTER
ATMH2MX	HYDROGEN-MAXIMUM
LENGTH	003 CHARACTER
ATMO2BK1	OXYGEN-BANK PRESSURE1
LENGTH	004 CHARACTER
ATMO2BK2	OXYGEN-BANK-PRESSURE2
LENGTH	004 CHARACTER
ATMO2BK3	OXYGEN-BANK-PRESSURE3
LENGTH	004 CHARACTER

ATMO2BK4	OXYGEN-BANK-PRESSURE4 LENGTH 004 CHARACTER
ATMO2BRF	OXYGEN-BLEED-RATE-FORWARD LENGTH 004 CHARACTER
ATMO2BA	OXYGEN-BLEED-RATE-AFT LENGTH 004 CHARACTER
ATMO2CAN	OXYGEN-CANDLES-ON-BOARD LENGTH 003 CHARACTER
ATMEQOOC	ATMOSPHERE-CONTROL-EQUIPMENT-OUT-OF-COMMISSION LENGTH 030 CHARACTER
ATMEQOC2	ATMOSPHERE-CONTROL-EQUIPMENT-OUT-OF-COMMISSION2 LENGTH 030 CHARACTER

DAILY ATMOSPHERE CONTAMINANT LOG ELEMENTS

ATMLDAT	ATMOSPHERE-CONTAMINANT-LOG-DATE LENGTH 007 CHARACTER
ATMLTME	ATMOSPHERE-CONTAMINANT-LOG-TIME LENGTH 006 CHARACTER
ATMLSAM	ATMOSPHERE-LOG-SAMPLING-POINT LENGTH 008 CHARACTER
ATMLOXY	OXYGEN-LEVEL LENGTH 003 CHARACTER
ATMLCO2	CARBON-DIOXIDE-MAXIMUM LENGTH 003 CHARACTER
ATMLCO	CARBON-MONOXIDE-MAXIMUM LENGTH 003 CHARACTER
ATMLR12	REFRIGERANT12-MAXIMUM LENGTH 004 CHARACTER
ATMLORM	OTHER-REFRIGERANT-MAXIMUM LENGTH 004 CHARACTER
ATMLH2	HYDROGEN-MAXIMUM LENGTH 003 CHARACTER
ATMLO2P	OXYGEN-PERCENT-WEEKLY-PORTABLE-READING LENGTH 003 CHARACTER
ATMLCO2P	CARBON-DIOXIDE-PERCENT-WEEKLY-PORTABLE-READING LENGTH 003 CHARACTER
ATMLAC	ACETONE-LEVEL LENGTH 005 CHARACTER
ATMLAM	AMMONIA-LEVEL LENGTH 005 CHARACTER
ATMLBZ	BENZENE-LEVEL LENGTH 005 CHARACTER
ATMLCO	CARBON-MONOXIDE-LEVEL LENGTH 005 CHARACTER
ATMLCHL	CHLORINE-LEVEL LENGTH 005 CHARACTER
ATMLMHYZ	HYDRAZINE-LEVEL LENGTH 005 CHARACTER

ATMLHC	HYDROCARBON-LEVEL LENGTH 005	CHARACTER
ATMLHYAC	HYDROCHLORIC-ACID-LEVEL LENGTH 005	CHARACTER
ATMLNTDX	NITROGEN-DIOXIDE-LEVEL LENGTH 005	CHARACTER
ATMLOZ	OZONE-LEVEL LENGTH 005	CHARACTER
ATMLSLDX	SULPHUR-DIOXIDE-LEVEL LENGTH 005	CHARACTER
ATMLTL	TOLUENE-LEVEL LENGTH 005	CHARACTER
ATMLTRET	TRICHLOROETHANE-LEVEL LENGTH 005	CHARACTER
ATMLTRTH	TRICHLOROETHYLENE-LEVEL LENGTH 005	CHARACTER
ATMLOC1	OTHER-CONTAMINANT1-LEVEL LENGTH 005	CHARACTER
ATMLOC2	OTHER-CONTAMINANT2-LEVEL LENGTH 005	CHARACTER
ATMLOC3	OTHER-CONTAMINANT3-LEVEL LENGTH 005	CHARACTER
ATMLOC4	OTHER-CONTAMINANT4-LEVEL LENGTH 005	CHARACTER
ATMLHAH	TOTAL-HYDROCARBON-LEVEL LENGTH 005	CHARACTER
ATMLHR11	REFRIGERANT11-LEVEL LENGTH 005	CHARACTER
ATMLHR12	REFRIGERANT12-LEVEL LENGTH 005	CHARACTER
ATMLH114	REFRIGERANT114-LEVEL LENGTH 005	CHARACTER
ATMLTHAM	THA-METHANE-LEVEL LENGTH 005	CHARACTER
ATMLTHAV	THA-VINYLDINE-LEVEL LENGTH 005	CHARACTER

ATMLTHAF	THA-FREON113-LEVEL	
	LENGTH	005 CHARACTER
ATMLHAMC	THA-METHYL-CHLOROFORM-LEVEL	
	LENGTH	005 CHARACTER
ATMLTHAB	THA-BENZENE-LEVEL	
	LENGTH	005 CHARACTER
ATMLTHAT	THA-TRICHLOROETHYLENE-LEVEL	
	LENGTH	005 CHARACTER
ATMLHARH	THA-REMAINING-HYDROCARBONS	
	LENGTH	005 CHARACTER

MEDEVAC QUESTIONNAIRE ELEMENTS

CRWNAME	CREW-MEMBER-NAME LENGTH 040 CHARACTER
CRWAGE	CREW-MEMBER-AGE LENGTH 002 NUMERIC
EVACDEP	MEDEVAC-PLACE-OF-DEPARTURE LENGTH 025 CHARACTER
EVACARVL	MEDEVAC-METHOD-OF-ARRIVAL LENGTH 020 CHARACTER
EVACETA	MEDEVAC-ESTIMATED-TIME-OF-ARRIVAL LENGTH 006 CHARACTER
EVACTRBY	TRANSPORTED-BY-STRETCHER AMBULATORY LENGTH 001 CHARACTER #LST S,A
EVACTRWT	CONDITION-TRANSPORTED-WITH LENGTH 001 CHARACTER #LST P,O,A,I,N TRANSPORTED WITH MUST BE: P=PRESSURE DRESSING FOR BLEEDING,O=OXYGEN,A=ORAL AIRWAY,I=INTRAVENOUS LINE,N=NONE
EVACIMP	BRIEF-IMPRESSION-OF-WHAT-IS-WRONG LENGTH 080 CHARACTER
EVACEST	ESTIMATE-OF-CONDITION-SERIOUSNESS LENGTH 001 CHARACTER #LST S,A,U SERIOUSNESS MUST BE: S=STABLE,C=ACCOMPANIED BY CORPMAN, U=UNCONSCIOUS
EVACINTR	TIME-INTERVAL-IN-DAYS-AND-HOURS-SICK-OR-INJURED LENGTH 005 CHARACTER
EVACBP	MEDEVAC-BLOOD-PRESSURE LENGTH 007 CHARACTER
EVACPULS	MEDEVAC-PULSE LENGTH 003 NUMERIC
EVACRR	MEDEVAC-RESPIRATIONS-PER-MINUTE LENGTH 002 NUMERIC
EVACTEMP	MEDEVAC-TEMPERATURE LENGTH 005 CHARACTER
EVACEVAL	PERFORMER-OF-PRELIMINARY-EVALUATION LENGTH 001 CHARACTER #LST W,C,M PERFORMER MUST BE: W=WITNESS,C=CORPMAN,M=MEDICAL

MEDICAL JOINING REPORT ELEMENTS

SHUIC	SHIP-UNIT-IDENTIFICATION-CODE LENGTH 005 CHARACTER
JOIDATE	MEDICAL-JOINING-REPORT-DATE LENGTH 007 CHARACTER
JOITIME	MEDICAL-JOINING-REPORT-TIME LENGTH 006 CHARACTER
JOIORS	NUMBER-OF-DEDICATED-OPERATING-ROOMS LENGTH 003 CHARACTER
JOIEQUIP	NUMBER-OF-OPERATING-AREAS-WITH-SUITABLE-EQUIPMENT LENGTH 002 NUMERIC
JOIXRAY	NUMBER-OF-FIXED-XRAY-MACHINES LENGTH 002 NUMERIC
JOIPXR	NUMBER-OF-PORTABLE-XRAY-MACHINES LENGTH 002 NUMERIC
JOIREF	REFRIGERATORS-IN-SICK-BAY-FOR-WHOLE-BLOOD-STORAGE LENGTH 002 NUMERIC
JOICAP	TOTAL-CAPACITY-IN-BLOOD-UNITS-OF-REFRIGERATORS LENGTH 003 NUMERIC
JOIAPHN	UNITS-OF-A-POSITIVE-ON-HAND LENGTH 004 NUMERIC
JOIANHN	UNITS-OF-A-NEGATIVE-ON-HAND LENGTH 004 NUMERIC
JOIBPHN	UNITS-OF-B-POSITIVE-ON-HAND LENGTH 004 NUMERIC
JOIBNHN	UNITS-OF-B-NEGATIVE-ON-HAND LENGTH 004 NUMERIC
JOIABPHN	UNITS-OF-AB-POSITIVE-ON-HAND LENGTH 004 NUMERIC
JOIABNHN	UNITS-OF-AB-NEGATIVE-ON-HAND LENGTH 004 NUMERIC
JOIOPHN	UNITS-OF-O-POSITIVE-ON-HAND LENGTH 004 NUMERIC
JOIONHN	UNITS-OF-O-NEGATIVE-ON-HAND LENGTH 004 NUMERIC

JOIAPDN	NUMBER-OF-A-POSITIVE-BLOOD-DONORS LENGTH 004 NUMERIC
JOIANDN	NUMBER-OF-A-NEGATIVE-BLOOD-DONORS LENGTH 004 NUMERIC
JOIBPDN	NUMBER-OF-B-POSITIVE-BLOOD-DONORS LENGTH 004 NUMERIC
JOIBNDN	NUMBER-OF-B-NEGATIVE-BLOOD-DONORS LENGTH 004 NUMERIC
JOIABPDN	NUMBER-OF-AB-POSITIVE-BLOOD-DONORS LENGTH 004 NUMERIC
JOIABNDN	NUMBER-OF-AB-NEGATIVE-BLOOD-DONORS LENGTH 004 NUMERIC
JOIOPDN	NUMBER-OF-O-POSITIVE-BLOOD-DONORS LENGTH 004 NUMERIC
JOIONDN	NUMBER-OF-O-NEGATIVE-BLOOD-DONORS LENGTH 004 NUMERIC
JOIICU	NUMBER-OF-ICU-BEDS-AVAILABLE LENGTH 003 NUMERIC
JOIOBD	NUMBER-OF-OTHER-SICK-BAY-BEDS LENGTH 003 NUMERIC
JOIOVRFL	NUMBER-OF-OVERFLOW-BEDS LENGTH 003 NUMERIC
CRWNAME	MEDICAL/DENTAL-CREW-NAME LENGTH 040 CHARACTER
CRWRR	CREW-RANK-RATE LENGTH 040 CHARACTER
CRWNOBC	CREW-NOBC/NEC LENGTH CHARACTER
ABORHTY	CREW-BLOOD-TYPE LENGTH 006 CHARACTER #LST A-POS, A-NEG, B-POS, B-NEG, AB-POS, AB-NEG, O-POS, O-NEG

REPORT OF ACTUAL CASUALTY ELEMENTS

CRWNAME	CREW-MEMBER-NAME LENGTH 040	CHARACTER
CREWRR	CREW-MEMBER-RATE-RANK LENGTH 020	CHARACTER
CREWSSN	CREW-MEMBER-SSN LENGTH 009	CHARACTER
CRWPACOM	CREW-MEMBER-PARENT-COMMAND LENGTH 040	CHARACTER
DIAGTX1	DIAGNOSIS-TEXT-1 LENGTH 146	CHARACTER
DIAGICD1	ICD9-CODE LENGTH 006	CHARACTER
DIAGTX2	DIAGNOSIS-TEXT-2 LENGTH 146	CHARACTER
DIAGICD2	SECICD9-CODE LENGTH 006	CHARACTER
PATYPE	AMBULATORY;LITTER PATIENT LENGTH 001 #LST A,L,U	CHARACTER
CRWCOND	CREW-MEMBER-CONDITON LENGTH 160	CHARACTER
CRWPROG	CREW-MEMBER-PROGNOSIS LENGTH 160	CHARACTER
KINNAME	NEXT-OF-KIN-NAME LENGTH 020	CHARACTER
KINSTR	NEXT-OF-KIN-STREET LENGTH 028	CHARACTER
KINCTY	NEXT-OF-KIN-CITY LENGTH 018	CHARACTER
KINSTAT	NEXT-OF-KIN-STATE LENGTH 002	CHARACTER
KINCNTY	NEXT-OF-KIN-COUNTRY LENGTH 002	CHARACTER
KINZIP	NEXT-OF-KIN-ZIP-CODE LENGTH 010	CHARACTER
KINPHNE	NEXT-OF-KIN-PHONE-NUMBER	

KINRELA	NEXT-OF-KIN-RELATIONSHIP
LENGTH	008 CHARACTER
KIN2NAME	SECONDARY-NEXT-OF-KIN-NAME
LENGTH	020 CHARACTER
KIN2STR	SECONDARY-NEXT-OF-KIN-STREET
LENGTH	028 CHARACTER
KIN2CTY	SECONDARY-NEXT-OF-KIN-CITY
LENGTH	018 CHARACTER
KIN2STAT	SECONDARY-NEXT-OF-KIN-STATE
LENGTH	002 CHARACTER
KIN2CNTY	SECONDARY-NEXT-OF-KIN-COUNTRY
LENGTH	002 CHARACTER
KIN2ZIP	SECONDARY-NEXT-OF-KIN-ZIP-CODE
LENGTH	010 CHARACTER
KIN2PHNE	SECONDARY-NEXT-OF-KIN-PHONE-NUMBER
LENGTH	018 CHARACTER
KIN2RELA	SECONDARY-NEXT-OF-KIN-RELATIONSHIP
LENGTH	008 CHARACTER
CASREFER	MEDICAL-SERVICE-REFERRAL-REQUESTED?
LENGTH	001 CHARACTER
	#LST Y,N,U
CASDATE	REFERRAL-EARLIEST-DATE-AVAILABLE-FOR-TRANSPORTATION
LENGTH	007 CHARACTER
CASTIME	REFERRAL-EARLIEST-TIME-AVAILABLE-FOR TRANSPORTATION
LENGTH	006 CHARACTER
CASGRP	REFERRAL-EARLIEST-GROUP-AVAILABLE-FOR-TRANSPORTATION
LENGTH	050 CHARACTER
CASEVAC	EVACUATION-OUT-OF-OPAREA-REQUESTED?
LENGTH	001 CHARACTER
	#LST Y,N,U
CASEDATE	EVACUATION-EARLIEST-DATE-AVAILABLE-FOR-TRANSPORTATION
LENGTH	007 CHARACTER
CASETIME	EVACUATION-EARLIEST-TIME-AVAILABLE-FOR-TRANSPORTATION
LENGTH	006 CHARACTER
CASEGRP	EVACUATION-EARLIEST-GROUP-AVAILABLE-FOR-TRANSPORTATION
LENGTH	050 CHARACTER

MEDICAL CENSUS REPORT ELEMENTS

SHUIC	MEDICAL-UNIT-REPORTING LENGTH 005 CHARACTER
SHPLC	LOCATION-OF-UNIT-REPORTING LENGTH 040 CHARACTER
CENDATE	DATE-AT-END-OF-REPORT-PERIOD LENGTH 007 CHARACTER
CENTIME	TIME-AT-END-OF-REPORT-PERIOD LENGTH 006 CHARACTER
CENGRP	GROUP-AT-END-OF-REPORT-PERIOD LENGTH 050 CHARACTER
CENBED	TOTAL-OPERATING-BEDS LENGTH 003 NUMERIC
CENBEDLF	MEDICAL-OPERATING-BEDS-LANDING-FORCE-ONLY LENGTH 003 NUMERIC
CENBEDSG	SURGICAL-OPERATING-BEDS-LANDING-FORCE-ONLY LENGTH 003 NUMERIC
CENBEDNP	NEUROPSYCHIATRIC-OPERATING-BEDS-HOSPITAL-COMPANY-ONLY LENGTH 003 NUMERIC
CENCAST	CASUALTY-STATUS LENGTH 001 CHARACTER #LST Y,N
CENSERV	ADMITTED-PATIENTS-SERVICE-STATUS LENGTH 003 CHARACTER #LST A,AF,CIV,CG,G,M,N,PW
CENBEDUN	TOTAL-BEDS-UNOCCUPIED-AT-END-OF-PERIOD LENGTH 003 NUMERIC
CENUBDLF	MEDICAL-BEDS-UNOCCUPIED-LANDING-FORCE-ONLY LENGTH 003 NUMERIC
CENSRGLF	SURGICAL-BEDS-UNOCCUPIED-LANDING-FORCE-ONLY LENGTH 003 NUMERIC
CENUBDNP	NEUROPSYCHIATRIC-BEDS-UNOCCUPIED-HOSPITAL-COMPANY-ONLY LENGTH 003 NUMERIC
CENPTDIS	CASUALTY-DISPOSITION LENGTH 006 CHARACTER #LST RTD,DTH,WEVAC,INATFT,OATFT,DEFR DISPOSITION MUST BE: RTD-RETURN TO DUTY, DTH- DEATH, WEVAC-WAITING EVACUATION,INATFT-TRANSFERRED

CENEVST	CASUALTY-EVACUATION-STATUS
LENGTH	003 CHARACTER
	#LST MIN,P,QPG,SBN,SCI,SGS,SMF,SNS,SOP,STH,SOR,SUR,U,Y
CENUNDIS	UNUSUAL-INCIDENCE-OR-OCCURENCE-OF-DISEASE-OR-INJURY
LENGTH	240 CHARACTER
CENOUTST	MEDICAL-VISIT-STATUS
LENGTH	005 CHARACTER
	#LST OUTPA,INPA
CENLOGPB	UNRESOLVED-MEDICAL-LOGISTICAL-PROBLEMS
LENGTH	240 CHARACTER
CENPERPB	UNRESOLVED-MEDICAL-PERSONNEL-PROBLEMS
LENGTH	240 CHARACTER
CENADMD	CASUALTY-ADMISSION-DATE
LENGTH	007 CHARACTER
CENADMT	CASUALTY-ADMISSION-TIME
LENGTH	006 CHARACTER
CRWNAME	CREW-NAME
LENGTH	040 CHARACTER
CRWRR	CREW-RANK/RATE
LENGTH	020 CHARACTER
CRWSSN	CREW-SSN
LENGTH	009 CHARACTER
CRWSERV	CREW-SERVICE
LENGTH	004 CHARACTER
	#LST USN,USCG,USMC,USAF,USA,CIV,PW
CRWDIAG	CREW-DIAGNOSIS
LENGTH	146 CHARACTER
CRWELH	CREW-ESTIMATED-LENGTH-OF-HOSPITALIZATION
LENGTH	003 CHARACTER
CRWPACOM	CREW-PARENT-COMMAND
LENGTH	040 CHARACTER
CRWTRANF	COMMAND-TRANSFERRED-FROM
LENGTH	040 CHARACTER
CRWTRANT	COMMAND-TRANSFERRED-TO
LENGTH	040 CHARACTER

SPOT STATUS REPORT ELEMENTS

STATDATE	SPOT-STATUS-REPORT-DATE		
	LENGTH	007	CHARACTER
STATSTIM	STATUS-REPORT-STARTING-TIME		
	LENGTH	006	CHARACTER
STATETIM	STATUS-REPORT-ENDING-TIME		
	LENGTH	006	CHARACTER
STATBED	NUMBER-OF-BEDS-AVAILABLE		
	LENGTH	003	NUMERIC
STATOCUP	NUMBER-OF-BEDS-OCCUPIED		
	LENGTH	003	NUMERIC
STATSOCU	SECNUMBER-OF-BEDS-OCCUPIED		
	LENGTH	003	NUMERIC
STATBACK	HOURS-OF-SURGICAL-BACKLOG		
	LENGTH	004	NUMERIC
STATTRAN	NUMBER-OF-PATIENTS-TRANSFERRED-OUT-OF-AOA		
	LENGTH	003	NUMERIC
STATMRK	REMARKS		
	LENGTH	800	CHARACTER

WHOLE BLOOD REPORT ELEMENTS

BLDDATE	DATE-AT-END-OF-REPORT-PERIOD LENGTH 007 CHARACTER
BLDTIME	TIME-AT-END-OF-REPORT-PERIOD LENGTH 006 CHARACTER
BLDGRP	GROUP-AT-END-OF-REPORT-PERIOD LENGTH 050 CHARACTER
SHUIC	UNIT FACILITY-REPORTING LENGTH 005 CHARACTER
BLDLOC	UNIT-LOCATION LENGTH 016 CHARACTER
BLDAPHN	UNITS-OF-A-POSITIVE-ON-HAND LENGTH 004 NUMERIC
BLDANHN	UNITS-OF-A-NEGATIVE-ON-HAND LENGTH 004 NUMERIC
BLDBPHN	UNITS-OF-B-POSITIVE-ON-HAND LENGTH 004 NUMERIC
BLDBNHN	UNITS-OF-B-NEGATIVE-ON-HAND LENGTH 004 NUMERIC
BLDABPHN	UNITS-OF-AB-POSITIVE-ON-HAND LENGTH 004 NUMERIC
BLDABNHN	UNITS-OF-AB-NEGATIVE-ON-HAND LENGTH 004 NUMERIC
BLDOPHN	UNITS-OF-O-POSITIVE-ON-HAND LENGTH 004 NUMERIC
BLDONHN	UNITS-OF-O-NEGATIVE-ON-HAND LENGTH 004 NUMERIC
BLDAPEX	EXPIRATION-DATE-OF-A-POSITIVE LENGTH 007 CHARACTER
BLDANEX	EXPIRATION-DATE-OF-A-NEGATIVE LENGTH 007 CHARACTER
BLDBPEX	EXPIRATION-DATE-OF-B-POSITIVE LENGTH 007 CHARACTER
BLDBNEX	EXPIRATION-DATE-OF-B-NEGATIVE LENGTH 007 CHARACTER

BLDABPEX	EXPIRATION-DATE-OF-AB-POSITIVE LENGTH 007 CHARACTER
BLDABNEX	EXPIRATION-DATE-OF-AB-NEGATIVE LENGTH 007 CHARACTER
BLDOPEX	EXPIRATION-DATE-OF-O-POSITIVE LENGTH 007 CHARACTER
BLDONEX	EXPIRATION-DATE-OF-O-NEGATIVE LENGTH 007 CHARACTER
BLDTRANS	TOTAL-UNITS-TRANSFUSED-DURING-PERIOD LENGTH 004 NUMERIC
BLDEXPUN	TOTAL-UNITS-EXPIRED-DURING-PERIOD LENGTH 004 NUMERIC
BLDAPRQ	UNITS-OF-A-POSITIVE-REQUIRED-FOR-TEN-DAYS LENGTH 004 NUMERIC
BLDANRQ	UNITS-OF-A-NEGATIVE-REQUIRED-FOR-TEN-DAYS LENGTH 004 NUMERIC
BLDBPRQ	UNITS-OF-B-POSITIVE-REQUIRED-FOR-TEN-DAYS LENGTH 004 NUMERIC
BLDBNRQ	UNITS-OF-B-NEGATIVE-REQUIRED-FOR-TEN-DAYS LENGTH 004 NUMERIC
BLDABPRQ	UNITS-OF-AB-POSITIVE-REQUIRED-FOR-TEN-DAYS LENGTH 004 NUMERIC
BLDABNRQ	UNITS-OF-AB-NEGATIVE-REQUIRED-FOR-TEN-DAYS LENGTH 004 NUMERIC
BLDOPRQ	UNITS-OF-O-POSITIVE-REQUIRED-FOR-TEN-DAYS LENGTH 004 NUMERIC
BLDONRQ	UNITS-OF-O-NEGATIVE-REQUIRED-FOR-TEN-DAYS LENGTH 004 NUMERIC
BLDDELIV	DESIRED-DELIVERY-DATE-FOR-ESTIMATED-REQUIREMENTS LENGTH 007 CHARACTER
BLDDESTN	DESIRED-DELIVERY-DESTINATION-FOR-REQUIREMENTS LENGTH 025 CHARACTER
BLDRECOF	RECEIVING-OFFICIAL-AT-DESTINATION LENGTH 020 CHARACTER

STATUS BOARD REPORT ELEMENTS

STTBPNUM	PATIENT-NUMBER LENGTH 005	NUMERIC
STTBBLTY	PATIENT-BLOOD-TYPE LENGTH 003 LST# O+,O-,A+,A-,B+,B-,AB+,AB-	CHARACTER
STTBDIAG	DIAGNOSIS LENGTH 050	CHARACTER
STTBROOM	OPERATING-ROOM-NUMBER LENGTH 003	CHARACTER
STTBPRTY	PRIORITY-NUMBER LENGTH 002	NUMERIC
STTBCOMP	ESTIMATED-TIME-OF-COMPLETION LENGTH 006	NUMERIC
STTBPOST	IN-POST-OP? LENGTH 001 LST# Y,N,U	CHARACTER
STTBTHOR	THORACIC-GENERAL-OPERATING-ROOM-BACKLOG-TIME LENGTH 006	NUMERIC
STTBNEUR	NEURO-ORTHO-OPERATING-ROOM-BACKLOG-TIME LENGTH 006	NUMERIC
STTBXRAY	XRAY-NEEDED? LENGTH 001 LST# Y,N,U	CHARACTER
STTBFAC	TIME-AT-FACILITY-AVAILABILITY-CHECK LENGTH 006	NUMERIC
STTBWARD	NUMBER-OF-WARD-BEDS-AVAILABLE LENGTH 003	NUMERIC
STTBICU	NUMBER-OF-ICU-BEDS-AVAILABLE LENGTH 003	NUMERIC
STTBOVER	NUMBER-OF-OVERFLOW-BEDS-AVAILABLE LENGTH 003	NUMERIC
STTBBLD	TIME-AT-BLOOD-AVAILABILITY-CHECK LENGTH 006	NUMERIC
STTBOPS	UNITS-OF-O-POSITIVE-AVAILABLE LENGTH 005	CHARACTER

STATONG	UNITS-OF-O-NEGATIVE-AVAILABLE LENGTH 005 CHARACTER
STATAPS	UNITS-OF-A-POSITIVE-AVAILABLE LENGTH 005 CHARACTER
STATANG	UNITS-OF-A-NEGATIVE-AVAILABLE LENGTH 005 CHARACTER
STATBPS	UNITS-OF-B-POSITIVE-AVAILABLE LENGTH 005 CHARACTER
STATBNG	UNITS-OF-B-NEGATIVE-AVAILABLE LENGTH 005 CHARACTER
STATABPS	UNITS-OF-AB-POSITIVE-AVAILABLE LENGTH 005 CHARACTER
STATABNG	UNITS-OF-AB-NEGATIVE-AVAILABLE LENGTH 005 CHARACTER

MEDICAL SURVEILLANCE QUESTIONNAIRE ELEMENTS

ASBQSTE	ASBESTOS-MED-SURV-QUESTION-SUBM-DTE
LENGTH	007 CHARACTER
CRWNAME	CREW-MEMBER-NAME
LENGTH	040 CHARACTER
CREWRR	CREW-RANK-RATE
LENGTH	020 CHARACTER
SHUIC	CURRENT-MILITARY-UNIT-SHIP-CODE
LENGTH	005 CHARACTER
CRWSEX	CREW-SEX
LENGTH	001 CHARACTER
	#LST M,F,U
CRWDOB	CREW-DATE-OF-BIRTH
LENGTH	007 CHARACTER
CRWJDES	CREW-CURRENT-JOB-DESIGNATOR
LENGTH	004 CHARACTER
ASBMLUN1	MOST-RECENT-MIL-UNIT-CODE-OR-COMPANY
LENGTH	072 CHARACTER
ASBUDTF1	MOST-RECENT-UNIT-CODE-DATE-BEGAN
LENGTH	007 CHARACTER
ASBUDTT1	MOST-RECENT-UNIT-CODE-DATE-END
LENGTH	007 CHARACTER
ASBJBST1	MOST-RECENT-FULL-OR-PART-TIME-JOB-STATUS
LENGTH	001 CHARACTER
	#LST F,P
ASBJT1	MOST-RECENT-JOB-TITLE
LENGTH	020 CHARACTER
ASBWK1	MOST-RECENT-WORK-ACTIVITIES
LENGTH	072 CHARACTER
ASBPHZ1	MOST-RECENT-PHYSICAL-HAZARDS-EXPOSED-TO
LENGTH	040 CHARACTER
ASBCHZ1	MOST-RECENT-CHEMICAL-HAZARDS-EXPOSED-TO
LENGTH	040 CHARACTER
ASBPEQ1	MOST-RECENT-PROTECTIVE-EQUIPMENT-WORN
LENGTH	025 CHARACTER

ASBMLUN2	2ND-MOST-RECENT-MIL-UNIT-CODE-OR-COMPANY LENGTH 072 CHARACTER
ASBUDTF2	2ND-MOST-RECENT-UNIT-CODE-DATE-BEGAN LENGTH 007 CHARACTER
ASBUDTT2	2ND-MOST-RECENT-UNIT-CODE-DATE-END LENGTH 007 CHARACTER
ASBJBST2	2ND-MOST-RECENT FULL-OR-PART-TIME-JOB-STATUS LENGTH 001 CHARACTER #LST F,P
ASBJT2	2ND-MOST-RECENT-JOB-TITLE LENGTH 020 CHARACTER
ASBWK2	2ND-MOST-RECENT-WORK-ACTIVITIES LENGTH 072 CHARACTER
ASBPHZ2	2ND-MOST-RECENT-PHYSICAL-HAZARDS-EXPOSED-TO LENGTH 040 CHARACTER
ASBCHZ2	2ND-MOST-RECENT-CHEMICAL-HAZARDS-EXPOSED-TO LENGTH 040 CHARACTER
ASBPEQ2	2ND-MOST-RECENT-PROTECTIVE-EQUIPMENT-WORN LENGTH 025 CHARACTER
ASBMLUN3	3RD-MOST-RECENT-MIL-UNIT-CODE-OR-COMPANY LENGTH 072 CHARACTER
ASBUDTF3	3RD-MOST-RECENT-UNIT-CODE-DATE-BEGAN LENGTH 007 CHARACTER
ASBUDTT3	3RD-MOST-RECENT-UNIT-CODE-DATE-END LENGTH 007 CHARACTER
ASBJBST3	3RD-MOST-RECENT-FULL-OR-PART-TIME-JOB-STATUS LENGTH 001 CHARACTER #LST F,P
ASBJT3	3RD-MOST-RECENT-JOB-TITLE LENGTH 020 CHARACTER
ASBWK3	3RD-MOST-RECENT-WORK-ACTIVITIES LENGTH 072 CHARACTER
ASBPHZ3	3RD-MOST-RECENT-PHYSICAL-HAZARDS-EXPOSED-TO LENGTH 040 CHARACTER
ASBCHZ3	3RD-MOST-RECENT-CHEMICAL-HAZARDS-EXPOSED-TO LENGTH 040 CHARACTER

ASBPEQ3	3RD-MOST-RECENT-PROTECTIVE-EQUIPMENT-WORN LENGTH 025 CHARACTER
ASBMLUN4	4TH-MOST-RECENT-MIL-UNIT-CODE-OR-COMPANY LENGTH 072 CHARACTER
ASBUDTF4	4TH-MOST-RECENT-UNIT-CODE-DATE-BEGAN LENGTH 007 CHARACTER
ASBUDTT4	4TH-MOST-RECENT-UNIT-CODE-DATE-END LENGTH 007 CHARACTER
ASBJBST4	4TH-MOST-RECENT-FULL-OR-PART-TIME-JOB-STATUS LENGTH 001 CHARACTER #LST F,P
ASBJT4	4TH-MOST-RECENT-JOB-TITLE LENGTH 020 CHARACTER
ASBWK4	4TH-MOST-RECENT-WORK-ACTIVITIES LENGTH 072 CHARACTER
ASBPHZ4	4TH-MOST-RECENT-PHYSICAL-HAZARDS-EXPOSED-TO LENGTH 040 CHARACTER
ASBCHZ4	4TH-MOST-RECENT-CHEMICAL-HAZARDS-EXPOSED-TO LENGTH 040 CHARACTER
ASBPEQ4	4TH-MOST-RECENT-PROTECTIVE-EQUIPMENT-WORN LENGTH 025 CHARACTER
ASBMLUN5	5TH-MOST-RECENT-MIL-UNIT-CODE-OR-COMPANY LENGTH 072 CHARACTER
ASBUDTF5	5TH-MOST-RECENT-UNIT-CODE-DATE-BEGAN LENGTH 007 CHARACTER
ASBUDTT5	5TH-MOST-RECENT-UNIT-CODE-DATE-END LENGTH 007 CHARACTER
ASBJBST5	5TH-MOST-RECENT-FULL-OR-PART-TIME-JOB-STATUS LENGTH 001 CHARACTER #LST F,P
ASBJT5	5TH-MOST-RECENT-JOB-TITLE LENGTH 020 CHARACTER
ASBWK5	5TH-MOST-RECENT-WORK-ACTIVITIES LENGTH 072 CHARACTER
ASBPHZ5	5TH-MOST-RECENT-PHYSICAL-HAZARDS-EXPOSED-TO LENGTH 040 CHARACTER

ASBCHZ5	5TH-MOST-RECENT-CHEMICAL-HAZARDS-EXPOSED-TO LENGTH 040 CHARACTER
ASBPEQ5	5TH-MOST-RECENT-PROTECTIVE-EQUIPMENT-WORN LENGTH 025 CHARACTER
ASBSJB1	MOST-RECENT-SECOND-JOB-HELD LENGTH 020 CHARACTER
ASBSCF1	MOST-RECENT-SECOND-JOB-DATE-BEGAN LENGTH 007 CHARACTER
ASBSCT1	MOST-RECENT-SECOND-JOB-DATE-END LENGTH 007 CHARACTER
ASBSJB2	2ND-MOST-RECENT-SECOND-JOB-HELD LENGTH 020 CHARACTER
ASBSCF2	2ND-MOST-RECENT-SECOND-JOB-DATE-BEGAN LENGTH 007 CHARACTER
ASBSCT2	2ND-MOST-RECENT-SECOND-JOB-DATE-END LENGTH 007 CHARACTER
ASBSJB3	3RD-MOST-RECENT-SECOND-JOB-HELD LENGTH 020 CHARACTER
ASBSCF3	3RD-MOST-RECENT-SECOND-JOB-DATE-BEGAN LENGTH 007 CHARACTER
ASBSCT3	3RD-MOST-RECENT-SECOND-JOB-DATE-END LENGTH 007 CHARACTER
ASBHOB1	FIRST-HOBBY-OR-ACTIVE-SPORT LENGTH 020 CHARACTER
ASBHOBF1	FIRST-HOBBY-OR-ACTIVE-SPORT-DATE-BEGAN LENGTH 007 CHARACTER
ASBHOBT1	FIRST-HOBBY-OR-ACTIVE-SPORT-DATE-END LENGTH 007 CHARACTER
ASBHOB2	SECOND-HOBBY-OR-ACTIVE-SPORT LENGTH 020 CHARACTER
ASBHOBF2	SECOND-HOBBY-OR-ACTIVE-SPORT-DATE-BEGAN LENGTH 007 CHARACTER
ASBHOBT2	SECOND-HOBBY-OR-ACTIVE-SPORT-DATE-END LENGTH 007 CHARACTER
ASBHOB3	THIRD-HOBBY-OR-ACTIVE-SPORT LENGTH 020 CHARACTER

ASBHOB3 THIRD-HOBBY-OR-ACTIVE-SPORT-DATE-BEGAN
LENGTH 007 CHARACTER

ASBHOB3 THIRD-HOBBY-OR-ACTIVE-SPORT-DATE-END
LENGTH 007 CHARACTER

ASBHOB4 FOURTH-HOBBY-OR-ACTIVE-SPORT
LENGTH 020 CHARACTER

ASBHOB4 FOURTH-HOBBY-OR-ACTIVE-SPORT-DATE-BEGAN
LENGTH 007 CHARACTER

ASBHOB4 FOURTH-HOBBY-OR-ACTIVE-SPORT-DATE-END
LENGTH 007 CHARACTER

ASBPHZ1 FIRST-PERCEIVED-WORK-HAZARD
LENGTH 072 CHARACTER

ASBPHZ2 SECOND-PERCEIVED-WORK-HAZARD
LENGTH 072 CHARACTER

ASBPHZ3 THIRD-PERCEIVED-WORK-HAZARD
LENGTH 072 CHARACTER

ASBPHZ4 FOURTH-PERCEIVED-WORK-HAZARD
LENGTH 072 CHARACTER

ASBPHZ5 FIFTH-PERCEIVED-WORK-HAZARD
LENGTH 072 CHARACTER

ASBROFF REVIEWING-MED-DEPT-OFFICIAL
LENGTH 040 CHARACTER

ASBPREC ASBESTOS-MED-SURV-PROG-RECOMMENDED
LENGTH 001 CHARACTER
#LST Y,N

PERIODIC HEALTH EXAMINATION ELEMENTS

SHUIC	CURRENT-MILITARY-UNIT-SHIP-CODE LENGTH 005 CHARACTER
ASBCTNUM	CONTROL-NUMBER-FOR-NEHC-USE LENGTH 008 NUMERIC
CRWNAME	CREW-MEMBER-NAME LENGTH 040 CHARACTER
CRWDOB	CREW-DATE-OF-BIRTH LENGTH 007 CHARACTER
CRWSEX	CREW-SEX LENGTH 001 CHARACTER #LST M,F,U
CRWYGS	CREW-YEARS-OF-GOVERNMENT-SERVICE LENGTH 002 NUMERIC
TODATE	TODAYS-DATE LENGTH 007 CHARACTER
CRWRACE	CREW-RACE LENGTH 004 CHARACTER #LST CAUC, NEG, IND, MONG, MAL
CRWSERV	CREW-MEMBER-SERVICE LENGTH 004 CHARACTER #LST USN, USCG, USMC, USA, USAF, CIV
CREWRR	CREW-RANK-RATE LENGTH 020 CHARACTER
ASBXPURP	ASBESTOS-EXAM-PURPOSE LENGTH 004 CHARACTER #LST INIT, PERI, TERM
HULLNUM	HULL-NUMBER LENGTH 009 CHARACTER
ASBCEXP	CURRENTLY-EXPOSED-TO-ASBESTOS? LENGTH 001 CHARACTER #LST Y,N
ASBXCONT	ASBESTOS-EXPOSURE-CONTINUOUS? LENGTH 001 CHARACTER #LST Y,N
ASBYEXP	NUMBER-OF-YEARS-EXPOSED LENGTH 002 NUMERIC

ASBAGEX	AGE-WHEN-FIRST-EXPOSED LENGTH 002 NUMERIC
ASBCOFF	USUALLY-HAVE-COUGH? LENGTH 001 CHARACTER #LST Y,N
ASBPHLM	USUALLY-HAVE-PHLEGM? LENGTH 001 CHARACTER #LST Y,N
ASBWHZ	USUALLY-HAVE-WHEEZING? LENGTH 001 CHARACTER #LST Y,N
ASBSOB	USUALLY-HAVE-SHORTNESS-OF-BREATH? LENGTH 001 CHARACTER #LST Y,N
ASBSMOK	EVER-SMOKED-CIGARETTES? LENGTH 001 CHARACTER #LST Y,N
ASBSMAGE	AGE-BEGAN-SMOKING LENGTH 002 NUMERIC
ASBSMQTY	NUMBER-PACKS-SMOKED LENGTH 003 CHARACTER #LST <1, 1, 1-2, >2
ASBAGQSM	AGE-WHEN-QUIT-SMOKING LENGTH 002 NUMERIC
ASBSMKP	EVER-SMOKE-PIPE-OR-CIGARS? LENGTH 001 CHARACTER #LST Y, N
ASBSMPYR	NUMBER-YEARS-SMOKE-PIPE/CIGARS? LENGTH 002 NUMERIC
ASBHOSLD	EVER-HOSPITALIZED-FOR-LUNG-DISEASE? LENGTH 001 CHARACTER #LST Y, N
CRWWGT	CREW-MEMBER-WEIGHT LENGTH 006 NUMERIC
CRWHGT	CREW-MEMBER-HEIGHT LENGTH 005 NUMERIC
ASBSTATR	CREW-MEMBER-STATURE LENGTH 006 CHARACTER #LST NORMAL, OBESE

ASBCHCF CHEST-CONFIGURATION
LENGTH 013 CHARACTER
#LST NORMAL, INCR A-P DIAM, OTH DEFORMITY

ASBCLUB CLUBBING-PRESENT
LENGTH 001 CHARACTER
#LST Y, N

ASBCRAK CRACKLES-TYPE
LENGTH 017 CHARACTER
#LST NONE, LOCAL LATE INSPIR, BILAT LATE INSPIR,
LOCAL EARLY INSPIR, BILAT EARLY INSPIR

ASBWHZT WHEEZES-TYPE
LENGTH 024 CHARACTER
#LST NONE, SING/MULT MONOPHON, POLYPH EXPIR,
SHORT LATE INSPIR MONOPH

ASBFVC FORCED-VITAL-CAPACITY
LENGTH 004 NUMERIC

ASBFEV FORCED-EXPIRATORY-VOLUME
LENGTH 004 NUMERIC

**NAVY ASBESTOS MEDICAL SURVEILLANCE
ROENTGENOGRAPHIC INTERPRETATION ELEMENTS**

CRWNAME	CREW-MEMBER-NAME LENGTH 040	CHARACTER
ASBXRNO	LOCAL-X-RAY-NUMBER LENGTH 006	NUMERIC
CRWSSN	CREW-MEMBER-SSN LENGTH 009	CHARACTER
CRWFORN	CREW-MEMBER-FOREIGN-NATIONAL LENGTH 002	CHARACTER
ASBPHEDT	PHYSICAL-EXAM-DATE LENGTH 006	NUMERIC
ASBXRTT	X-RAY-DATE LENGTH 006	NUMERIC
ASBFILQL	X-RAY-FILM-QUALITY LENGTH 001 #LST 1, 2, 3 ASBFILQL MUST BE: 1-GOOD, 2-ACCEPTABLE, 3-UNREADABLE	NUMERIC
ASBUNRED	REASON-FOR-FILM-UNREADABILITY LENGTH 001 #LST 0, 1, 2, 3, 4, 5, 6, 7, 8, 9, A ASBUNRED MUST BE: 0-OVEREXPOSED, 1-UNDEREXPOSED, 2-LACKS SHARP DETAIL, 3-ARTIFACTS, 4-IMPROPER POSITION OR PATIENT MOTION, 5-FILM FOGGED 6-POOR CONTRAST, 7-POOR PROCESSING, 8-POOR INSPIRATION 9-POOR FILM/SCREEN CONTACT, A-OTHER	CHARACTER
ASBFLNEG	IS-FILM-COMpletely-NEGATIVE LENGTH 002	CHARACTER
SHUIC	CURRENT-MILITARY-UNIT-SHIP-CODE LENGTH 005	CHARACTER
ASBSORT	SMALL-OPACITIES-ROUNDED-TYPE LENGTH 001 #LST P, Q, R	CHARACTER
ASBSORP	SMALL-OPACITIES-ROUNDED-PROFUSION LENGTH 002	CHARACTER
ASBSORZ	SMALL-OPACITIES-ROUNDED-ZONES LENGTH 006	NUMERIC

ASBSOIT	SMALL-OPACITIES-IRREGULAR-TYPE
	LENGTH 001 CHARACTER
	#LST S, T, U
ASBSOIP	SMALL-OPACITIES-IRREGULAR-PROFUSION
	LENGTH 002 CHARACTER
ASBSOIZ	SMALL-OPACITIES-IRREGULAR-ZONES
	LENGTH 006 CHARACTER
ASBCOMBP	COMBINED-PROFUSION
	LENGTH 002 NUMERIC
ASBLOS	LARGE-OPACITIES-SIZE
	LENGTH 001 CHARACTER
	#LST O, A, B, C
ASBLOT	LARGE-OPACITIES-TYPE
	LENGTH 002 CHARACTER
	#LST WD, ID
ASBPTCA	PLEURAL-THICKENING-COSTROPHRENIC-ANGLE
	LENGTH 001 CHARACTER
	#LST O, R, L, B
ASBPTWD	PLEURAL-THICKENING-WALLS-AND-DIAPHRAGM-SITE
	LENGTH 001 CHARACTER
	#LST O, R, L, B
ASBPTW	PLEURAL-THICKENING-WIDTH
	LENGTH 001 CHARACTER
	#LST O, A, B, C
ASBPTEX	PLEURAL-THICKENING-EXTENT
	LENGTH 001 NUMERIC
	#LST O, 1, 2
ASBPTPL	PLEURAL-PLAQUE
	LENGTH 001 CHARACTER
	#LST O, R, L, B
ASBPTCER	CERTAINTY-OF-PLAQUE
	LENGTH 001 NUMERIC
ASBIDD	ILL-DEFINED-DIAPHRAGM
	LENGTH 001 CHARACTER
	#LST O, R, L, B
ASBIDCO	ILL-DEFINED-CARDIAC-OUTLINE
	LENGTH 001 NUMERIC
	#LST O, 1, 2, 3

ASBPCD	PLEURAL-CALCIFICATION-DIAPHRAGM LENGTH 001 CHARACTER #LST 0, R, L, B
ASBPCW	PLEURAL-CALCIFICATION-WALL LENGTH 001 CHARACTER #LST 0, R, L, B
ASBPCOTH	PLEURAL-CALCIFICATION-OTHER-SITES LENGTH 001 CHARACTER #LST 0, R, L, B
ASBPCGR	PLEURAL-CALCIFICATION-GRADE-OF-A/B/C LENGTH 001 NUMERIC #LST 0, 1, 2, 3
ASBOSOB	OTHER-SYMBOLS-OBLIGATORY LENGTH 016 CHARACTER #LST 0, AX, BU, CA, CN, CO, CP, CV, DI, EF, EM, ES, HI, HO, K, PX, RP, TB
ASBOSOD	OTHER-SYMBOLS-OTHER-DISEASES LENGTH 040 CHARACTER
ASBCOMM	OTHER-COMMENTS LENGTH 240 CHARACTER
ASBSEDOC	SHOULD-PATIENT-SEE-DOCTOR-BASED-ON-COMMENTS LENGTH 001 CHARACTER #LST Y, N
ASBRDID	FILM-READER'S-ID-NUMBER LENGTH 003 CHARACTER
ASBRDDT	DATE-OF-FILM-READING LENGTH 004 NUMERIC

APPENDIX V

WEIGHT CONTROL PROGRAM CHARTS

Chart A
PERCENT FAT ESTIMATION FOR MALES

Circumference Value *	Height (inches)									
	60.0	60.5	61.0	61.5	62.0	62.5	63.0	63.5	64.0	64.5
11.0:	3	2	2	2	2	1	1	1	1	1
11.5:	4	3	4	3	3	3	3	2	2	2
12.0:	6	5	5	5	5	4	4	4	4	3
12.5:	7	7	6	6	6	6	6	5	5	5
13.0:	8	8	8	8	7	7	7	7	6	6
13.5:	10	9	9	9	9	8	8	8	8	8
14.0:	11	11	10	10	10	10	10	9	9	9
14.5:	12	12	12	11	11	11	11	11	10	10
15.0:	13	13	13	13	12	12	12	12	12	11
15.5:	15	14	14	14	14	13	13	13	13	12
16.0:	16	15	15	15	15	15	14	14	14	14
16.5:	17	17	16	16	16	16	15	15	15	15
17.0:	18	18	17	17	17	17	16	16	16	16
17.5:	19	19	19	19	18	18	18	17	17	17
18.0:	20	20	20	19	19	19	19	18	18	18
18.5:	21	21	21	20	20	20	20	19	19	19
19.0:	22	22	22	21	21	21	21	20	20	20
19.5:	23	23	23	22	22	22	22	21	21	21
20.0:	24	24	23	23	23	23	22	22	22	22
20.5:	25	25	24	24	24	24	23	23	23	23
21.0:	26	26	25	25	25	25	24	24	24	24
21.5:	27	27	26	26	26	25	25	25	25	24
22.0:	28	27	27	27	27	26	26	26	26	26
22.5:	28	28	28	28	27	27	27	27	26	26
23.0:	29	29	29	29	28	28	28	28	27	27
23.5:	30	30	30	29	29	29	29	29	28	28
24.0:	31	31	30	30	30	30	29	29	29	29
24.5:	32	31	31	31	31	30	30	30	30	29
25.0:	33	32	32	32	31	31	31	31	30	30
25.5:	33	33	33	33	32	32	32	31	31	31
26.0:	34	34	34	33	33	33	32	32	32	32
26.5:	35	35	34	34	34	33	33	33	33	32
27.0:	36	35	35	35	34	34	34	34	33	33
27.5:	36	36	36	35	35	35	35	34	34	34
28.0:	37	37	36	36	36	36	35	35	35	35
28.5:	38	37	37	37	37	36	36	36	36	35
29.0:	38	38	38	38	37	37	37	37	36	36
29.5:	39	39	39	38	38	38	37	37	37	37
30.0:	40	39	39	39	39	38	38	38	38	37
30.5:	-	-	40	40	39	39	39	39	38	38
31.0:	-	-	-	-	40	40	39	39	39	39
31.5:	-	-	-	-	-	-	-	40	40	39
32.0:	-	-	-	-	-	-	-	-	-	40
32.5:	-	-	-	-	-	-	-	-	-	-
33.0:	-	-	-	-	-	-	-	-	-	-
33.5:	-	-	-	-	-	-	-	-	-	-
34.0:	-	-	-	-	-	-	-	-	-	-
34.5:	-	-	-	-	-	-	-	-	-	-
35.0:	-	-	-	-	-	-	-	-	-	-

* Circumference Value = abdomen circumference - neck circumference (in inches)

Chart A
PERCENT FAT ESTIMATION FOR MALES

Circumference Value *	Height (inches)									
	65.0	65.5	66.0	66.5	67.0	67.5	68.0	68.5	69.0	69.5
11.0:	0	0	-	-	-	-	-	-	-	-
11.5:	2	2	1	1	1	1	1	0	0	-
12.0:	3	3	2	3	2	2	2	2	2	1
12.5:	5	4	3	4	4	4	3	3	3	3
13.0:	6	6	6	5	5	5	5	5	4	4
13.5:	7	7	7	7	6	6	6	6	6	5
14.0:	9	8	8	8	8	8	7	7	7	7
14.5:	10	10	9	9	9	9	9	8	8	8
15.0:	11	11	11	10	10	10	10	10	9	9
15.5:	12	12	12	12	11	11	11	11	11	10
16.0:	13	13	13	13	12	12	12	12	12	11
16.5:	14	14	14	14	14	13	13	13	13	13
17.0:	16	15	15	15	15	14	14	14	14	14
17.5:	17	16	16	16	16	16	15	15	15	15
18.0:	18	17	17	17	17	17	16	16	16	16
18.5:	19	18	18	18	18	18	17	17	17	17
19.0:	20	19	19	19	19	19	18	18	18	18
19.5:	21	20	20	20	20	19	19	19	19	19
20.0:	22	21	21	21	21	20	20	20	20	20
20.5:	22	22	22	22	22	21	21	21	21	20
21.0:	23	23	23	23	22	22	22	22	22	21
21.5:	24	24	24	24	23	23	23	23	22	22
22.0:	25	25	25	24	24	24	24	24	23	23
22.5:	26	26	25	25	25	25	25	24	24	24
23.0:	27	27	26	26	26	26	25	25	25	25
23.5:	28	27	27	27	27	26	26	26	26	26
24.0:	28	28	28	28	27	27	27	27	27	26
24.5:	29	29	29	29	28	28	28	28	27	27
25.0:	30	30	30	29	29	29	29	28	28	28
25.5:	31	31	30	30	30	30	29	29	29	29
26.0:	32	31	31	31	31	30	30	30	30	29
26.5:	32	32	32	32	31	31	31	31	30	30
27.0:	33	33	32	32	32	32	32	31	31	31
27.5:	34	33	33	33	33	33	32	32	32	32
28.0:	34	34	34	34	33	33	33	33	33	32
28.5:	35	35	35	34	34	34	34	33	33	33
29.0:	36	36	36	35	35	35	34	34	34	34
29.5:	36	36	36	36	35	35	35	35	35	34
30.0:	37	37	37	36	36	36	36	35	35	35
30.5:	38	38	37	37	37	37	36	36	36	36
31.0:	38	38	38	38	37	37	37	37	37	36
31.5:	39	39	39	38	38	38	38	37	37	37
32.0:	40	39	39	39	39	38	38	38	38	38
32.5:	-	-	40	40	39	39	39	39	38	38
33.0:	-	-	-	-	40	40	39	39	39	39
33.5:	-	-	-	-	-	-	-	40	40	39
34.0:	-	-	-	-	-	-	-	-	-	40
34.5:	-	-	-	-	-	-	-	-	-	-
35.0:	-	-	-	-	-	-	-	-	-	-

* Circumference Value = abdomen circumference - neck circumference (in inches)

Chart A
PERCENT FAT ESTIMATION FOR MALES

Circumference Value *	Height (inches)									
	70.0	70.5	71.0	71.5	72.0	72.5	73.0	73.5	74.0	74.5
11.0:	-	-	-	-	-	-	-	-	-	-
11.5:	-	-	-	-	-	-	-	-	-	-
12.0:	1	1	1	1	0	0	0	-	-	-
12.5:	3	2	2	2	2	2	1	1	1	1
13.0:	4	3	4	3	3	3	3	3	2	2
13.5:	5	5	5	5	4	4	4	4	4	4
14.0:	7	6	6	6	6	6	5	5	5	5
14.5:	8	8	7	7	7	7	7	6	6	6
15.0:	9	9	9	8	8	8	8	8	7	7
15.5:	10	10	10	9	9	9	9	9	9	8
16.0:	11	11	11	11	10	10	10	10	10	9
16.5:	12	12	12	12	12	11	11	11	11	11
17.0:	13	13	13	13	13	12	12	12	12	12
17.5:	14	14	14	14	14	13	13	13	13	13
18.0:	15	15	15	15	15	14	14	14	14	14
18.5:	16	16	16	16	16	15	15	15	15	15
19.0:	17	17	17	17	17	16	16	16	16	16
19.5:	18	18	18	18	18	17	17	17	17	17
20.0:	19	19	19	19	18	18	18	18	18	17
20.5:	20	20	20	20	19	19	19	19	19	18
21.0:	21	21	21	20	20	20	20	20	19	19
21.5:	22	22	22	21	21	21	21	21	20	20
22.0:	23	23	22	22	22	22	22	21	21	21
22.5:	24	23	23	23	23	23	22	22	22	22
23.0:	25	24	24	24	24	23	23	23	23	23
23.5:	25	25	25	25	24	24	24	24	24	23
24.0:	26	26	26	25	25	25	25	25	24	24
24.5:	27	27	26	26	26	26	26	25	25	25
25.0:	28	27	27	27	27	27	26	26	26	26
25.5:	28	28	28	28	28	27	27	27	27	27
26.0:	29	29	29	29	28	28	28	28	27	27
26.5:	30	30	29	29	29	29	29	28	28	28
27.0:	31	30	30	30	30	30	29	29	29	29
27.5:	31	31	31	31	30	30	30	30	30	29
28.0:	32	32	32	31	31	31	31	31	30	30
28.5:	33	33	32	32	32	32	31	31	31	31
29.0:	33	33	33	33	33	32	32	32	32	31
29.5:	34	34	34	33	33	33	33	33	32	32
30.0:	35	35	34	34	34	34	33	33	33	33
30.5:	35	35	35	35	35	34	34	34	34	33
31.0:	36	36	36	35	35	35	35	34	34	34
31.5:	37	36	36	36	36	36	35	35	35	35
32.0:	37	37	37	37	36	36	36	36	36	35
32.5:	38	38	37	37	37	37	37	36	36	36
33.0:	39	38	38	38	38	37	37	37	37	37
33.5:	39	39	39	38	38	38	38	38	37	37
34.0:	40	39	39	39	39	39	38	38	38	38
34.5:	-	-	40	40	39	39	39	39	39	38
35.0:	-	-	-	-	40	40	40	39	39	39

* Circumference Value = abdomen circumference - neck circumference (in inches)

Chart A
PERCENT FAT ESTIMATION FOR MALES

Circumference Value *	Height (inches)									
	75.0	75.5	76.0	76.5	77.0	77.5	78.0	78.5	79.0	79.5
11.0:	-	-	-	-	-	-	-	-	-	-
11.5:	-	-	-	-	-	-	-	-	-	-
12.0:	-	-	-	-	-	-	-	-	-	-
12.5:	1	1	2	0	-	-	-	-	-	-
13.0:	2	2	2	1	1	1	1	1	1	0
13.5:	3	3	3	3	3	2	2	2	2	2
14.0:	5	4	4	4	4	4	3	3	3	3
14.5:	6	6	5	5	5	5	5	5	4	4
15.0:	7	7	7	6	6	6	6	6	6	5
15.5:	8	8	8	8	7	7	7	7	7	6
16.0:	9	9	9	9	8	8	8	8	8	8
16.5:	10	10	10	10	10	9	9	9	9	9
17.0:	11	11	11	11	11	10	10	10	10	10
17.5:	12	12	12	12	12	11	11	11	11	11
18.0:	13	13	13	13	13	12	12	12	12	12
18.5:	14	14	14	14	14	13	13	13	13	13
19.0:	15	15	15	15	15	14	14	14	14	14
19.5:	16	16	16	16	16	15	15	15	15	15
20.0:	17	17	17	17	16	16	16	16	16	16
20.5:	18	18	18	18	17	17	17	17	17	16
21.0:	19	19	19	18	18	18	18	18	18	17
21.5:	20	20	20	19	19	19	19	19	18	18
22.0:	21	21	20	20	20	20	20	19	19	19
22.5:	22	21	21	21	21	21	20	20	20	20
23.0:	22	22	22	22	22	21	21	21	21	21
23.5:	23	23	23	23	22	22	22	22	22	21
24.0:	24	24	24	23	23	23	23	23	22	22
24.5:	25	25	24	24	24	24	24	23	23	23
25.0:	26	25	25	25	25	25	24	24	24	24
25.5:	26	26	26	26	26	25	25	25	25	25
26.0:	27	27	27	26	26	26	26	26	25	25
26.5:	28	28	27	27	27	27	27	26	26	26
27.0:	28	28	28	28	28	27	27	27	27	27
27.5:	29	29	29	29	28	28	28	28	28	27
28.0:	30	30	29	29	29	29	29	28	28	28
28.5:	31	30	30	30	30	30	29	29	29	29
29.0:	31	31	31	31	30	30	30	30	30	29
29.5:	32	32	31	31	31	31	31	30	30	30
30.0:	33	32	32	32	32	32	31	31	31	31
30.5:	33	33	33	33	32	32	32	32	32	31
31.0:	34	34	33	33	33	33	33	32	32	32
31.5:	34	34	34	34	34	33	33	33	33	33
32.0:	35	35	35	34	34	34	34	34	33	33
32.5:	36	35	35	35	35	35	34	34	34	34
33.0:	36	36	36	36	35	35	35	35	35	34
33.5:	37	37	36	36	36	36	36	35	35	35
34.0:	37	37	37	37	37	36	36	36	36	36
34.5:	38	38	38	37	37	37	37	37	36	36
35.0:	39	38	38	38	38	38	37	37	37	37
35.5:	39	39	39	39	38	38	38	38	38	37
36.0:	40	40	39	39	39	39	39	38	38	38
36.5:	-	-	40	40	39	39	39	39	39	38
37.0:	-	-	-	-	-	40	40	39	39	39
37.5:	-	-	-	-	-	-	-	40	40	40
38.0:	-	-	-	-	-	-	-	-	-	-
38.5:	-	-	-	-	-	-	-	-	-	-

* Circumference = abdomen circumference - neck circumference (in inches)

Chart B
PERCENT FAT ESTIMATION FOR FEMALES

Circumference Value *	Height (inches)									
	58.0	58.5	59.0	59.5	60.0	60.5	61.0	61.5	62.0	62.5
34.5	1	0	-	-	-	-	-	-	-	-
35.0	2	1	1	1	0	-	-	-	-	-
35.5	3	2	2	2	1	1	0	0	-	-
36.0	4	3	3	3	2	2	1	1	1	0
36.5	5	4	4	4	3	3	2	2	2	1
37.0	6	5	5	4	4	4	3	3	3	2
37.5	7	6	6	5	5	5	4	4	4	3
38.0	7	7	7	6	6	6	5	5	5	4
38.5	8	8	8	7	7	7	6	6	5	5
39.0	9	9	9	8	8	7	7	7	6	6
39.5	10	10	9	9	9	8	8	8	7	7
40.0	11	11	10	10	10	9	9	8	8	8
40.5	12	12	11	11	10	10	10	9	9	9
41.0	13	12	12	12	11	11	11	10	10	10
41.5	14	13	13	13	12	12	11	11	11	10
42.0	14	14	13	13	13	13	12	12	12	11
42.5	15	15	15	14	14	13	13	13	12	12
43.0	16	16	15	15	15	14	14	14	13	13
43.5	17	17	16	16	15	15	15	14	14	14
44.0	18	17	17	17	16	16	16	15	15	14
44.5	19	18	18	17	17	17	16	16	16	15
45.0	19	19	19	18	18	17	17	17	16	16
45.5	20	20	19	19	19	18	18	18	17	17
46.0	21	20	20	20	19	19	19	18	18	18
46.5	22	21	21	20	20	20	19	19	19	18
47.0	22	22	22	21	21	20	20	20	19	19
47.5	23	23	22	22	22	21	21	21	20	20
48.0	24	23	23	23	22	22	22	21	21	21
48.5	25	24	24	23	23	23	22	22	22	21
49.0	25	25	25	24	24	23	23	23	22	22
49.5	26	26	25	25	24	24	24	23	23	23
50.0	27	26	26	26	25	25	24	24	24	23
50.5	27	27	27	26	26	26	25	25	24	24
51.0	28	28	27	27	27	26	26	25	25	25
51.5	29	28	28	28	27	27	27	26	26	25
52.0	29	29	29	28	28	28	27	27	27	26
52.5	30	30	29	29	29	28	28	28	27	27
53.0	31	30	30	30	29	29	29	28	28	27
53.5	31	31	31	30	30	30	29	29	28	28
54.0	32	32	31	31	31	30	30	30	29	29
54.5	33	32	32	32	31	31	31	30	30	29
55.0	33	33	33	32	32	32	31	31	30	30
55.5	34	34	33	33	33	32	32	31	31	31
56.0	35	34	34	33	33	33	32	32	32	31
56.5	35	35	34	34	34	33	33	33	32	32
57.0	36	35	35	35	34	34	34	33	33	33
57.5	36	36	36	35	35	35	34	34	34	33
58.0	37	37	36	36	36	35	35	35	34	34
58.5	38	37	37	37	36	36	35	35	35	34

* Circumference Value = abdomen I + hip - neck circumferences (in inches)
(waist)

Chart B
PERCENT FAT ESTIMATION FOR FEMALES

Circumference Value *	Height (inches)									
	63.0	63.5	64.0	64.5	65.0	65.5	66.0	66.5	67.0	67.5
34.5:	-	-	-	-	-	-	-	-	-	-
35.0:	-	-	-	-	-	-	-	-	-	-
35.5:	-	-	-	-	-	-	-	-	-	-
36.0:	0	-	-	-	-	-	-	-	-	-
36.5:	1	1	0	-	-	-	-	-	-	-
37.0:	2	2	1	1	1	0	-	-	-	-
37.5:	3	3	2	2	2	1	1	1	0	-
38.0:	4	3	3	3	2	2	2	1	1	1
38.5:	5	4	4	-	3	3	3	2	2	2
39.0:	6	5	5	5	4	4	4	3	3	3
39.5:	7	6	6	6	5	5	5	4	4	4
40.0:	7	7	7	6	6	6	5	5	5	4
40.5:	8	8	8	7	7	7	6	6	6	5
41.0:	9	9	9	8	8	7	7	7	6	6
41.5:	10	10	9	9	9	8	8	8	7	7
42.0:	11	10	10	10	9	9	9	8	8	8
42.5:	11	11	11	11	10	10	10	9	9	9
43.0:	12	12	12	11	11	11	10	10	10	9
43.5:	12	13	13	12	12	12	11	11	11	10
44.0:	14	14	13	13	13	12	12	12	11	11
44.5:	15	15	14	14	14	13	13	13	12	12
45.0:	16	15	15	15	14	14	14	13	13	13
45.5:	16	16	16	15	15	15	14	14	14	13
46.0:	17	17	17	16	16	16	15	15	15	14
46.5:	18	18	17	17	17	16	16	16	15	15
47.0:	19	18	18	18	17	17	17	16	16	16
47.5:	19	19	19	18	18	18	17	17	17	16
48.0:	20	20	20	19	19	18	18	18	17	17
48.5:	21	21	20	20	20	19	19	19	18	18
49.0:	22	21	21	21	20	20	20	19	19	19
49.5:	22	22	22	21	21	21	20	20	20	19
50.0:	23	23	22	22	22	21	21	21	20	20
50.5:	24	23	23	22	22	22	22	21	21	21
51.0:	24	24	24	23	23	23	22	22	22	21
51.5:	25	25	24	24	24	23	23	23	22	22
52.0:	26	25	25	25	24	24	24	23	23	23
52.5:	26	26	26	25	25	25	24	24	24	23
53.0:	27	27	26	26	26	25	25	25	24	24
53.5:	28	27	27	27	26	26	26	25	25	25
54.0:	28	28	28	27	27	27	26	26	26	25
54.5:	29	29	28	28	28	27	27	27	26	26
55.0:	30	29	29	29	28	28	28	27	27	27
55.5:	30	30	30	29	29	29	28	28	28	27
56.0:	31	31	30	30	30	29	29	29	28	28
56.5:	32	31	31	31	30	30	30	29	29	29
57.0:	32	32	32	31	31	31	30	30	30	29
57.5:	33	32	32	32	31	31	31	30	30	30
58.0:	33	33	33	32	32	32	31	31	31	30
58.5:	34	34	33	33	33	32	32	32	31	31

* Circumference Value = abdomen I + hip - neck circumferences (in inches)
(waist)

Chart B
PERCENT FAT ESTIMATION FOR FEMALES

Circumference Value *	Height (inches)									
	68.0	68.5	69.0	69.5	70.0	70.5	71.0	71.5	72.0	72.5
34.5:	-	-	-	-	-	-	-	-	-	-
35.0:	-	-	-	-	-	-	-	-	-	-
35.5:	-	-	-	-	-	-	-	-	-	-
36.0:	-	-	-	-	-	-	-	-	-	-
36.5:	-	-	-	-	-	-	-	-	-	-
37.0:	-	-	-	-	-	-	-	-	-	-
37.5:	-	-	-	-	-	-	-	-	-	-
38.0:	0	0	-	-	-	-	-	-	-	-
38.5:	1	1	1	0	0	-	-	-	-	-
39.0:	2	2	2	1	1	1	0	0	-	-
39.5:	3	3	3	2	2	2	1	1	1	0
40.0:	4	4	4	3	3	3	2	2	2	1
40.5:	5	5	4	3	4	3	3	3	2	2
41.0:	6	5	5	5	5	4	4	4	3	3
41.5:	7	6	6	6	5	5	5	4	4	4
42.0:	8	7	7	7	6	6	6	5	5	5
42.5:	8	8	8	7	7	7	6	6	6	6
43.0:	9	9	9	8	8	8	7	7	7	6
43.5:	10	10	9	9	9	8	8	8	7	7
44.0:	11	10	10	10	9	9	9	9	8	8
44.5:	12	11	11	11	10	10	10	9	9	9
45.0:	12	12	12	11	11	11	10	10	10	10
45.5:	13	13	12	12	12	12	11	11	11	10
46.0:	14	14	13	13	13	12	12	12	12	11
46.5:	15	14	14	14	13	13	13	12	12	12
47.0:	15	15	15	14	14	14	13	13	13	13
47.5:	16	16	15	15	15	15	14	14	14	13
48.0:	17	17	16	16	16	15	15	15	14	14
48.5:	18	17	17	17	16	16	16	15	15	15
49.0:	18	18	18	17	17	17	16	16	16	15
49.5:	19	19	18	18	18	17	17	17	17	16
50.0:	20	19	19	19	18	18	18	18	17	17
50.5:	20	20	20	19	19	19	19	18	18	18
51.0:	21	21	20	20	20	20	19	19	19	18
51.5:	22	21	21	21	21	20	20	20	19	19
52.0:	22	22	22	21	21	21	21	20	20	20
52.5:	23	23	22	22	22	22	21	21	21	20
53.0:	24	23	23	23	23	22	22	22	21	21
53.5:	24	24	23	23	23	23	23	22	22	22
54.0:	25	25	24	24	23	24	23	23	23	22
54.5:	26	25	25	24	24	24	24	24	23	23
55.0:	26	26	26	25	25	25	24	24	24	24
55.5:	27	27	26	26	26	25	25	25	25	24
56.0:	28	27	27	27	26	26	26	25	25	25
56.5:	28	28	28	27	27	27	26	26	26	25
57.0:	29	29	28	28	28	27	27	27	26	26
57.5:	30	29	29	29	28	28	28	27	27	27
58.0:	30	30	29	29	29	29	28	28	28	27
58.5:	31	30	30	30	29	29	29	29	28	28

* Circumference Value = abdomen + hip + neck circumferences (in inches)
(waist)

Chart B
PERCENT FAT ESTIMATION FOR FEMALES

Circumference Value *	Height* (inches)									
	72.0	73.5	74.0	74.5	75.0	75.5	76.0	76.5	77.0	77.5
34.5:										
35.0:										
35.5:										
36.0:										
36.5:										
37.0:										
37.5:										
38.0:										
38.5:										
39.0:										
39.5:										
40.0:	1	1	1	1	1	1	1	1	1	1
40.5:	2	2	2	2	2	2	2	2	2	2
41.0:	3	3	3	3	3	3	3	3	3	3
41.5:	4	4	4	4	4	4	4	4	4	4
42.0:	5	5	5	5	5	5	5	5	5	5
42.5:	6	6	6	6	6	6	6	6	6	6
43.0:	7	7	7	7	7	7	7	7	7	7
43.5:	8	8	8	8	8	8	8	8	8	8
44.0:	9	9	9	9	9	9	9	9	9	9
44.5:	10	10	10	10	10	10	10	10	10	10
45.0:	11	11	11	11	11	11	11	11	11	11
45.5:	12	12	12	12	12	12	12	12	12	12
46.0:	13	13	13	13	13	13	13	13	13	13
46.5:	14	14	14	14	14	14	14	14	14	14
47.0:	15	15	15	15	15	15	15	15	15	15
47.5:	16	16	16	16	16	16	16	16	16	16
48.0:	17	17	17	17	17	17	17	17	17	17
48.5:	18	18	18	18	18	18	18	18	18	18
49.0:	19	19	19	19	19	19	19	19	19	19
49.5:	20	20	20	20	20	20	20	20	20	20
50.0:	21	21	21	21	21	21	21	21	21	21
50.5:	22	22	22	22	22	22	22	22	22	22
51.0:	23	23	23	23	23	23	23	23	23	23
51.5:	24	24	24	24	24	24	24	24	24	24
52.0:	25	25	25	25	25	25	25	25	25	25
52.5:	26	26	26	26	26	26	26	26	26	26
53.0:	27	27	27	27	27	27	27	27	27	27
53.5:	28	28	28	28	28	28	28	28	28	28

* Circumference Value = abdomen + hip + neck circumferences in inches
/ 3

CRITERIA FOR REFERRAL TO REHABILITATION PROGRAM. Members identified as overfat (greater than 22 percent body fat (male) and greater than 30 percent body fat (females)) will be required to participate in a command directed physical conditioning (Level I) program. Participation in Level II program is optional. Members medically diagnosed as obese may be offered the opportunity to participate in a Level II or III program. Level I participation is required after approval by medical officer.

a. Criteria for referral to Level I - Command Program:

(1) Members who have been identified as overfat or medically diagnosed as obese.

b. Criteria for referral to Level II - CAAC:

(1) Members who have been determined to be either overfat or medically diagnosed as obese regardless of the cause, and;

(2) Members who desire to participate in the program (if not amenable to program participation an entry must be made in the service record indicating that rehabilitation was offered and refused) and;

(3) Members who have not participated in a Level II program during the last 3 years, and;

(4) Recommended by commanding officer.

c. Criteria for referral to Level III - Residential:

(1) Members who have been diagnosed as obese by a medical officer, and;

(2) Members who do not have a local CAAC rehabilitation program available to them or cannot participate in the local CAAC rehabilitation program because of operational commitments, and;

(3) Members who do not have an eating disorder diagnosis, e.g., bulimia or anorexia nervosa, and;

(4) Members who desire to participate in the program (if not amenable to program participation, an entry must be made in the service record indicating that rehabilitation was offered and refused), and;

(5) E-5 or above, with strong potential for continued service, and;

(6) Members who have not participated in a Level III program during the last three years, and;

(7) Members who have one year remaining on active duty from the date of starting level III rehabilitation, and;

(8) Recommended by commanding officer.

d. Rehabilitation Failure. When diagnosis of obesity is sustained for 16 months, members can be considered for administrative separation.

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FIELD	GROUP	SUB GROUP		
19 ABSTRACT (Continue on reverse if necessary and identify by block number) Numerous transmissions originating within shipboard medical departments are required by U.S. Navy regulations and policies. These information flows may terminate aboard the ship, within the task force, or with external Navy commands. Medical department computerization would alleviate much of the administrative burden associated with the reporting demands. Three different procedures were used to determine the medical information processing requirements aboard ships: medical procedures manuals were reviewed, a survey was developed and sent to surface ships of the Pacific fleet, and interviews were held with medical department representatives. The structured analysis method was utilized to document the information flows proposed for shipboard automation. The documented medical department communications include a weight control memorandum, atmosphere control reports, medical regulating messages, and asbestos reporting requirements. Issues of concern to the development of a medical information system were also discussed.				
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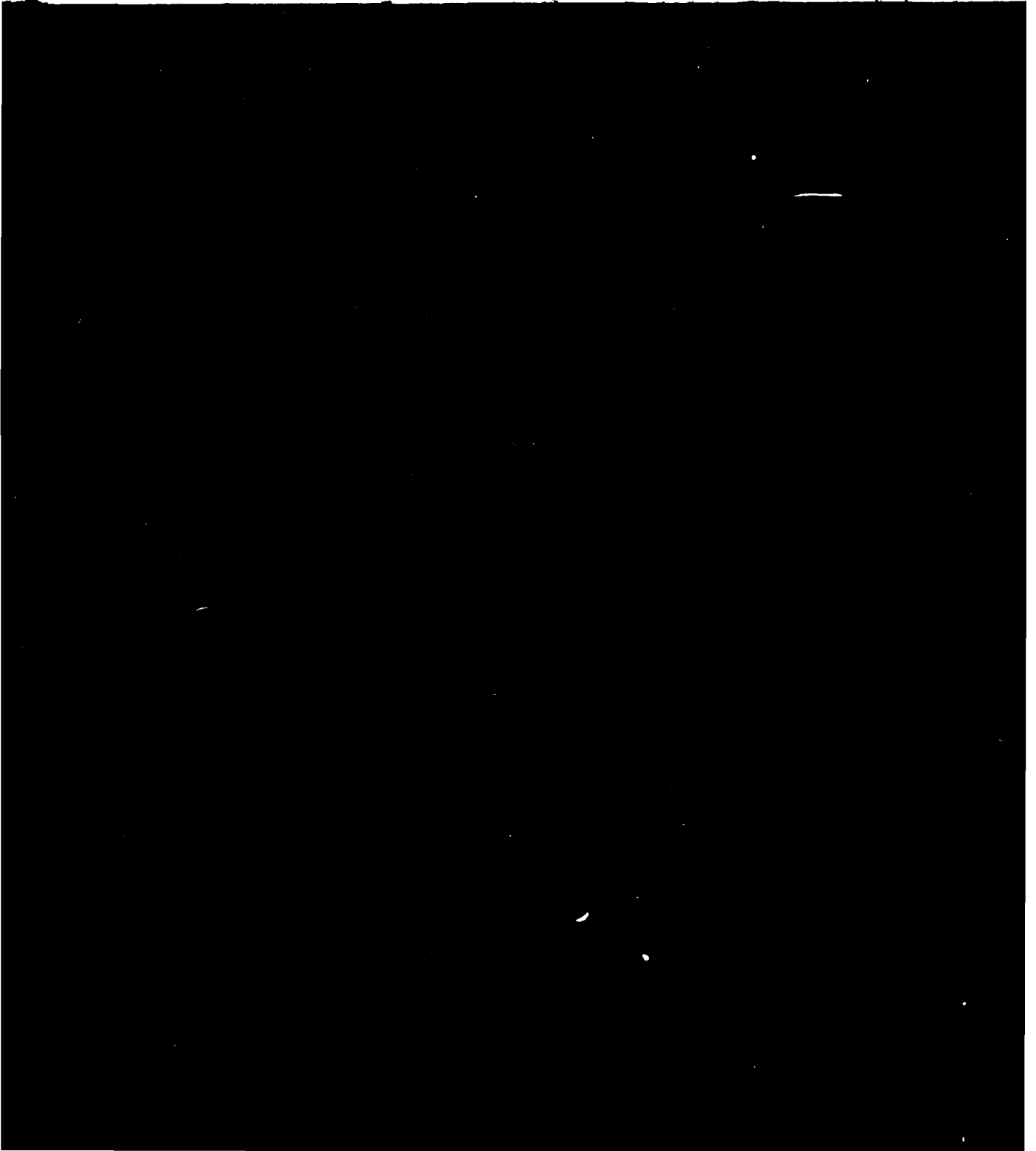
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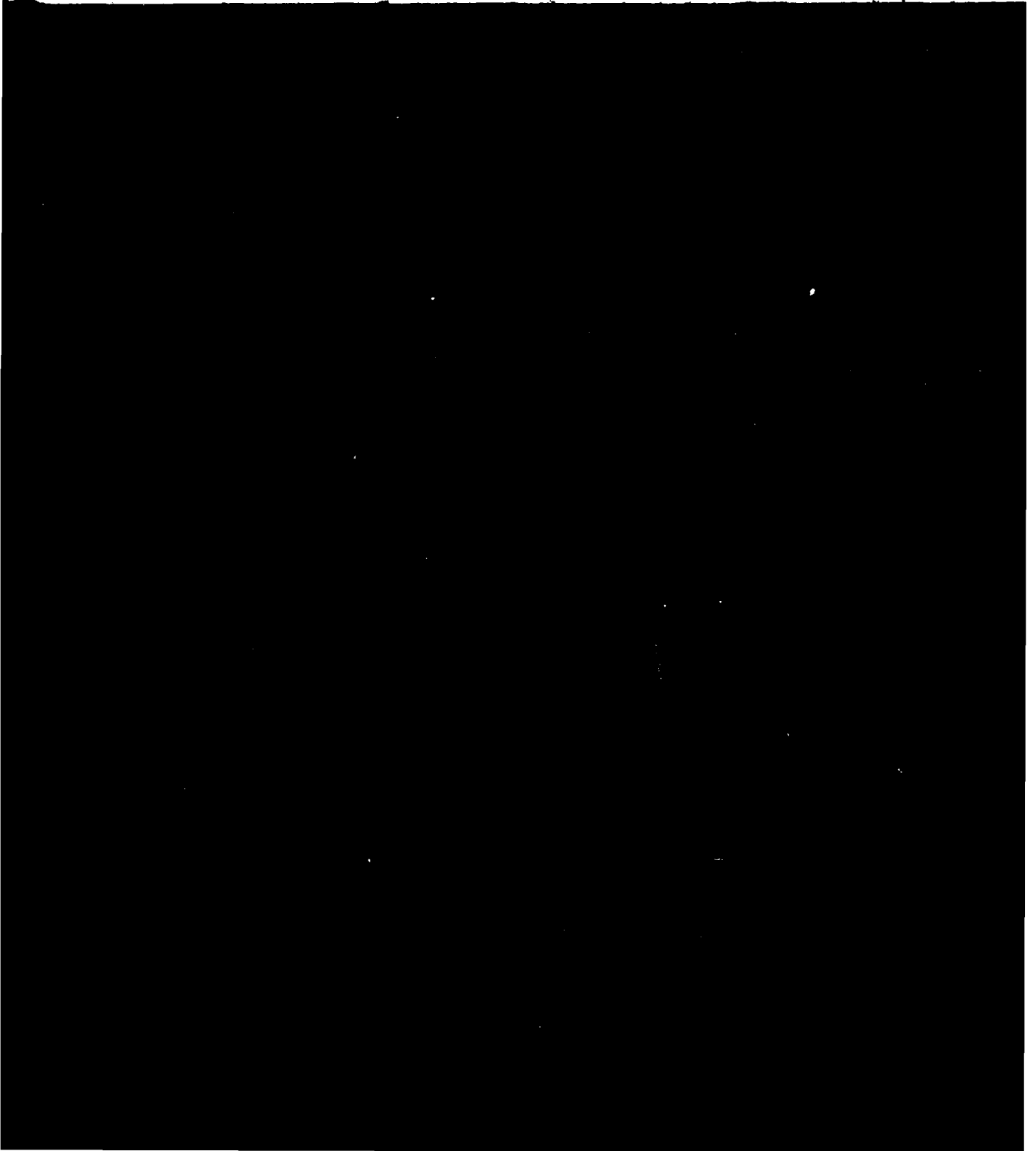
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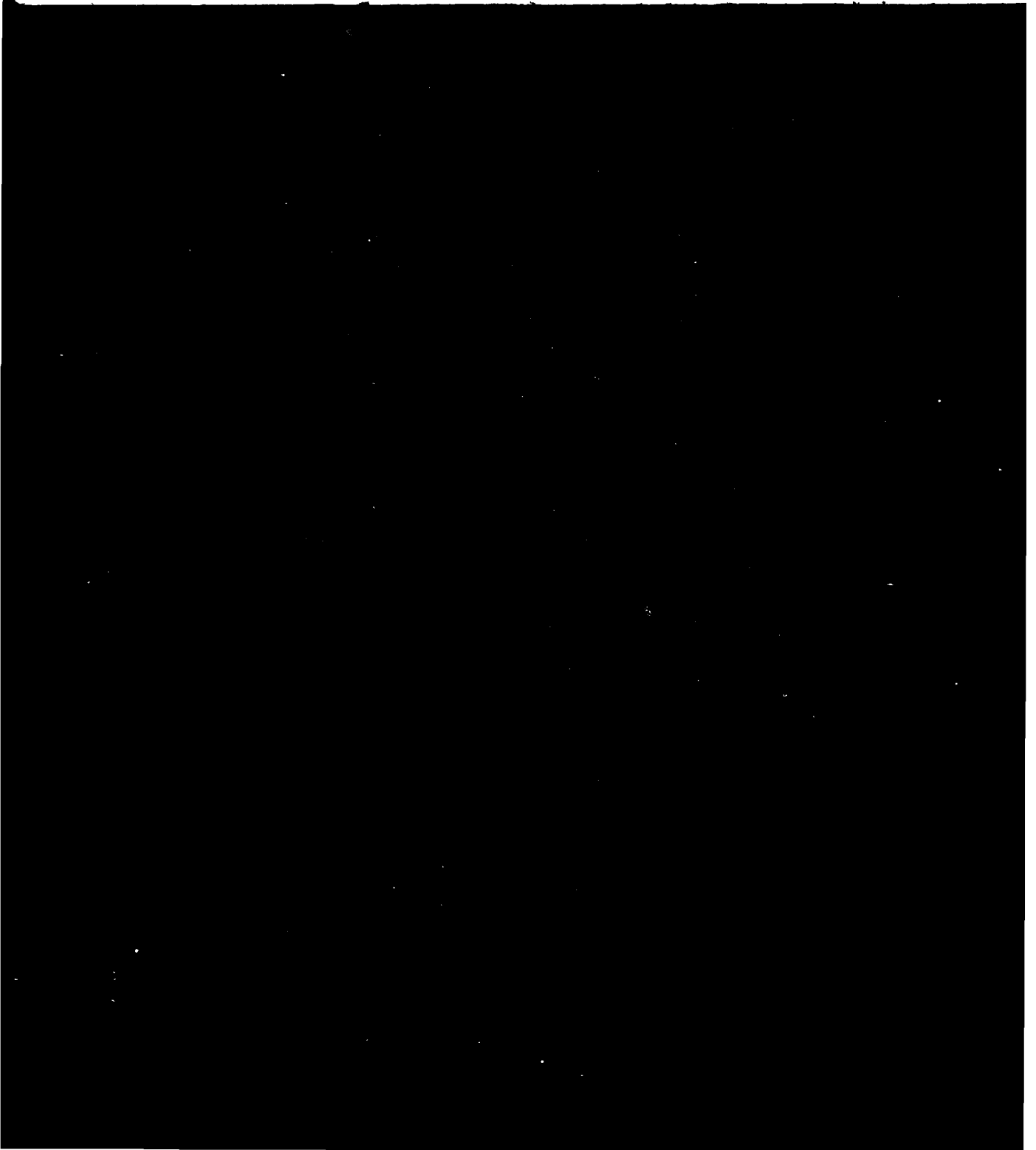


34.0	-	-	-	-	-	-	-	-	-
34.5	-	-	-	-	-	-	-	-	-
35.0	-	-	-	-	-	-	-	-	-

* Circumference Value = abdomen circumference - neck circumference (in inches)

36.0:	40	40	39	39	38	38	38	38	37
36.5:	-	-	39	39	39	39	38	38	38
37.0:	-	-	40	40	40	39	39	39	39
37.5:	-	-	-	-	-	40	40	39	39
38.0:	-	-	-	-	-	-	40	40	40
38.5:	-	-	-	-	-	-	-	-	-

* Circumference = abdomen circumference - neck circumference (in inches)



(5) E-5 or above, with strong potential for continued service, and;

(6) Members who have not participated in a Level III program during the last three years, and;

(7) Members who have one year remaining on active duty from the date of starting level III rehabilitation, and;

(8) Recommended by commanding officer.

d. Rehabilitation Failure. When diagnosis of obesity is sustained for 16 months, members can be considered for administrative separation.

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